ALLAN W. H. BÉ

Vema 7-8 10

Plankton Analysis

Vema
7+8
Aug Dec 55

V-7
V-8

Ostracods Removed from

V-7 samples by J. C.

40@100

#30, 27✓, 28✓, 32, 29✓, 36

39 @ 100 | 2/100 | 28 @100 | 115 107 | 60 @ 207

500/2000 115

V = correction added to data sheet

Foraams removed from:

1M	1M	1/2 M
V7-4	V7-43	V7-12
-5	-44	-13
-7	-46	-14
-9		-15
-10		-16
-11		-19
-12		-20
-19		-21
-20		-22
-21		-26
-24		-36?
-25		-38
-26		-40
-27		-41
-34		
-32		
-35		
-36		
-37		
-38		
-39		
-40		
-41		
-42		

Data sheet with "foraams removed" on the bad foraams tab at bottom. Ostracod counts made.

Pierce 1951

Differences between S. hispida + S. helenae

Sagitta hispida : small, maturing at 5–12 mm; usual 8 mm. small # ant teeth (4–9) laying flat against head with no overlap.

Sagitta helenae : large, maturing at 16.5 mm; ant. teeth (8–16) fan out and overlap resembling a small curved fan.

Calculation of Volume of Water filtered:

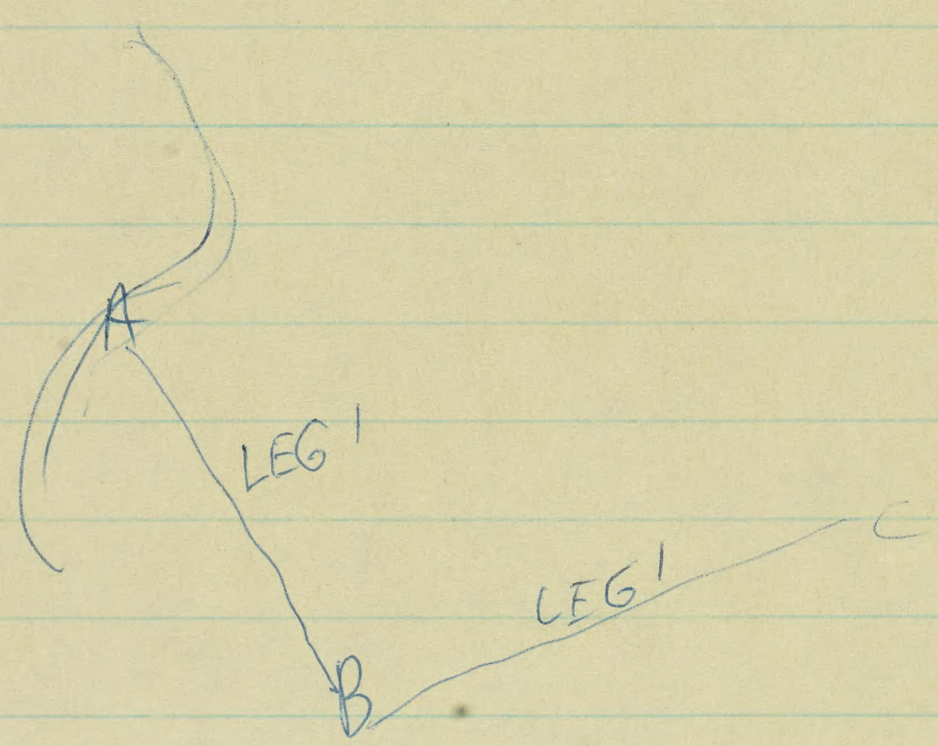
From V-10 got $\bar{x}$ of m^3/min for ½M + 1M nets =

~~45~~ 40 m^3/min, 1M net, 8.9 m^3/min, ½M net. Ekel

ratio of 1M to ½M = 4.5 to get vol. of water filtered if ½M net known.

Reexamination of ~~Alaska~~ vial specimens
April 23, 1956

V7-25 1 S. helenae, 1 S. ledoti, 1 S. calif.
V7-26 16 S. helenae, 1 S. ledoti, 6 S. calif.
V7-33 1 S. ledoti, 3 S. calif, 3 P. chaer
V7-35 1 S. ledoti, 2 S. calif, mid & atl.
V7-36 S. dark eye except immature — may be immature stage of atlantic form of S. ledoti.


A
LEG 1
B
LEG 1
C

PLANKTON ANALYSIS

Cruise V-7-12
Station 12
Date 7-VIII-55
Net in 1613
Net out 1636
Position 60-14W, 34-10N

Equipment ½ M
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered ~~25 M³~~ 230 M³
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	4	20	87
K. pac.			
S. calif			
S. decip	4	10	174
S. eleg.			
S. enfl.	2	10	87
S. hex.	3	10	130
S. lyra	4	10	174
S. min.	26	10	1130
S. serrat	13	10	565
S. serrat			
S. ten.			
S. ten.			
P. draco	10	10	435
Quat. Sag.	5	10	217
Total chaets			3029
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	8	10	348	
Diatoms	2	10	87	
Dinoflag				
Noctiluca	~~48~~ 15	2	3260	
Amphipods	6	10	261	
Atlantids	13	5	1130	
Cladocera				
Copepods	186	1	80910	
Chaetogn.	[redacted]			
Dec. larv	7	10	305	
Doliolids	3	10	130	
Euphaus.	7	10	305	
Euph. egg	2	10	87	
Fish eggs	1	10	43.5	
Fish larv	1	10	43.5	
Forams				
Larvacns	10	~~10~~ 5	870	
Medusae	1	10	43.5	
Ostracods	~~48~~	2	10430	
Polychts	10	5	870	
Pter. thc	10	5	870	
Pter. gym				
Rads				
Salps				
Siphonoph	10	5	870	
Squid	2	100	87	
~~Amphipods~~	9	5	783	
~~Harpact~~	54	1	23490	
~~Bryozoan larv.~~	7	10	305	
Lucifer	1	10	43.5	
Clam larvae	2	10	90	

PLANKTON ANALYSIS

Cruise V-7, 13
Station 13
Date 8·VIII·55
Net in 0649
Net out 0710
Position 35-14N, 59-30W

Equipment ½ M
Depth tow 0-300M
Type tow oblique
$M^3 H_2O$ filtered 190 M^3
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt	2	20	53 ✓
K. pac.	2	10	105 ✓
S. calif	1	20	27 ✓
S. decip	3	10	158 ✓
S. eleg.			
S. enfl.	7	10	370 ✓
S. hex.	2	10	105 ✓
S. lyra	1	20	27 ✓
S. min.	24	10	1260 ✓
S. serrat	23	10	1215 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	5	10	264 ✓
Immat S. serrat	7	10	370 ✓
Total chaets			3816
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	4	10	210 ✓	
Diatoms	4	10	210 ✓	
Dinoflag				
Noctiluca	44	7	3242 ✓	
Amphipods	5	50	53 ✓	
Atlantids	16	10	845 ✓	
Cladocera				
Copepods (Calan.)	154	1	81615 ✓	
Chaetogn.				
Dec. larv	5	100	27 ✓	
Doliolids	9	10	475 ✓	
Euphaus.	15	10	790 ✓	
Euph. egg				
Fish eggs	1	100	5 ✓	
Fish larv	4	100	21 ✓	
Forams				
Larvacns	12	10	635 ✓	
Medusae	1	10	52 ✓	
Ostracods	41	3	7000 ✓	
Polychts	12	10	630 ✓	
Pter. thc	8	10	420 ✓	
Pter. gym	1	10	52 ✓	
Rads				
Salps				
Siphonoph	10	10	526 ✓	
Squid	2	100	10 ✓	
~~Pterotracheid~~	1	50	10 ✓	
Herpact	34	1	17685 ✓	
Amphipoda	4	10	210 ✓	
~~Bryozoan larv~~	7	10	370 ✓	
~~Cumacea~~	1	50	10 ✓	
misc. eggs ?	—	7	-5	740
Myzids		1	-100	5
Siphonulid larva		1	-100	5

PLANKTON ANALYSIS

Cruise V-7
Station 14
Date 8/VIII/55
Net in 1822
Net out 1853
Position 35-20 N, 58-23 W

Equipment ½ M
Depth tow 0-300 M
Type tow Oblique
$M^3 H_2O$ filtered 245 M^3
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	10	40 ✓
K. pac.			
S. calif			
S. decip	4	5	326 ✓
S. eleg.			
S. enfl.	2	5	163 ✓
S. hex.	3	5	245 ✓
S. lyra	1	5	81 ✓
S. min.	18	5	1476 ✓
S. serrat	27	5	2210 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	5	5	409 ✓
Total chaets			4954
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	17 ~~12~~	10	693 ✓	
Diatoms	6	10	245 ✓	
Dinoflag				
Noctiluca	65	2	13265 ✓	
Amphipods	3	10	123 ✓	
Atlantids	17	4	1735 ✓	
Cladocera				
Copepods	389	2	79385 ✓	
Chaetogn.	~~389~~	~~2~~		
Dec. larv	8	10	328 ✓	
Doliolids	23	10	940 ✓	
Euphaus.	11	10	450 ✓	
Euph. egg				
Fish eggs	1	20	20 ✓	
Fish larv	3	10	122 ✓	
Forams				
Larvacns	11	10	450 ✓	
Medusae				
Ostracods	55	2	11220 ✓	
Polychts	27	10	1117 ✓	
Pter. thc	24	10	979 ✓	
Pter. gym				
Rads	19	10	775 ✓	
Salps				
Siphonoph	27	4	2755 ✓	
Squid				
Harpact	91	2	18571 ✓	
Lucifer	3	10	123 ✓	
Pterotracheid	1	10	40 ✓	
Tetraplutia	1	50	8 ✓	
Amphioxus	11=2	20	40 ✓	
Cypharautes	1	– 20	20 ✓	
Boreale cypris	1	– 20	20 ✓	
Mysids	1	– 20	20 ✓	

PLANKTON ANALYSIS

Cruise V-7
Station 15
Date 9/VIII/55
Net in 1638
Net out 1707
Position 35-07 N, 57-34 W

Equipment B.T. winch
Depth tow ½ M
Type tow 0-300 M
M^3H_2O filtered oblique
Displacementvol. 268

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

	Group	#C	%S	#/10^3M^3	Rank
	Ceratium	30	10	1119	✓
	Diatoms				
	Dinoflag				
	Noctiluca	27	4	2518	✓
/	Amphipods	1	10	37	✓
////	Atlantids	4	10	148	✓
// ~~////~~	Cladocera	7	10	261	✓
	Copepods	169	2	31518	✓
	Chaetogn.				
/	Dec. larv	1	10	37	✓
	Doliolids	14	10	522	✓
////	Euphaus.	4	10	148	✓
	Euph. egg	~~4~~	~~10~~		
	Fish eggs				
/	Fish larv	1	10	37	✓
	Forams				
	Larvacns	55	10	2052	✓
/	Medusae	1	10	37	✓
	Ostracods	42	2	7833	✓
	Polychts	9	10	336	✓
	Pter. thc	31	4	2891	✓
	Pter. gym				
///	Rads	3	10	112	✓
	Salps				
	Siphonoph	29	4	2704	✓
	Squid				
	Harpact	74	1	27602	✓
	Amphipods	1	10	37	✓
///	Clam larv.	4	10	148	✓
/ ~~////~~	Gastropod	11	10	410	✓
~~////~~	Bryozoan larv	5	10	186	✓
/ ~~////~~ ~~////~~ ~~////~~ ~~////~~ ~~////~~ ~~////~~	D	31	7	1652	✓
///	O	4	10	148	✓
/	Crustacean	1	10	37	✓
/	[illegible]	1	10	37	✓

PLANKTON ANALYSIS

B.T. Winch

Cruise V-7
Station 16
Date 9/VIII/55
Net in 1707
Net out 1721
Position 35-11N, 57-36 W

Equipment ½ M
Depth tow 0-150 M
Type tow oblique
$M^3 H_2O$ filtered 125 M³
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/10³M³
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10³M³	Rank
Ceratium	13	10	1040	
Diatoms	2	10	160	
Dinoflag				
Noctiluca	40	5	6400	
Amphipods	2	10	160	
Atlantids	24	10	1920	
Cladocera	119	1	95200	
Copepods	156	1	124800	
Chaetogn.				
Dec. larv	7	10	560	
Doliolids	21	10	1680	
Euphaus.	1	10	80	
Euph. egg				
Fish eggs				
Fish larv	2	10	160	
Forams				
Larvacns	41	10	3280	
Medusae	2	100	16	
Ostracods	78	5	12480	
Polychts	12	10	960	
Pter. thc	34	5	5440	
Pter. gym				
Rads	3	10	240	
Salps				
Siphonoph	42	5	6720	
Squid				
Lucifer	3	10	240	
Harpact	43	1	34400	
Crust. larva	2	10	160	
Bryozoan larv	13	10	1040	
Crab larv	2	10	160	
∅	17	10	1360	
1 amphiops	1	10	80	

PLANKTON ANALYSIS

Cruise U-7
Station 18
Date 20/VI/56
Net in
Net out
Position

Equipment B.T. Winch
Depth tow
Type tow
$M^3 H_2O$ filtered 90 m^3
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	32	5	7110 ✓	
Diatoms	1	20	55.5 ✓	
Dinoflag				
Noctiluca	38 ~~50~~	4	10554 ✓	
Amphipods	2	20	111 ✓	
Atlantids	8	20	444 ✓	
Cladocera	21	10	2333 ✓	
Copepods	131	1	145410 ✓	
Chaetogn.				
Dec. larv	1	20	55.5 ✓	
Doliolids	17	20	944 ✓	
Euphaus.	7	20	389 ✓	
Euph. egg				
Fish eggs				
Fish larv	2	20	111 ✓	
Forams				
Larvacns	32	4	8888 ✓	
Medusae				
Ostracods	50	4	13875 ✓	
Polychts	14	20	778 ✓	
Pter. ~~tac~~	34	10	3774 ✓	
Pter. gym				
Rads	3	20	167 ✓	
Salps				
Siphonoph	45	10	5000 ✓	
Squid				
Harpact.	31	1	34410 ✓	
Bryozoan larv	15	20	833 ✓	
gastropod	5	20	278 ✓	
	27	10	3000 ✓	
	2	20	111 ✓	
amphipoda	3	20	167 ✓	
Mysid	1	20	55.5 ✓	
Lucifer	1	20	55.5 ✓	
Cremia annulata	1	~~20~~ 50	22 ✓	

PLANKTON ANALYSIS

Cruise V-7
Station 19
Date 11/VIII/55
Net in 1497
Net out 1518
Position 56-46 W, 36-32 N

Equipment ½ M net
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 260 M^3
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.	3	5	231
S. calif	2	5	154
S. decip	2	5	154
S. eleg.			
S. enfl.			
S. hex.	2	10	77
S. lyra	1	10	38
S. min.	15	5	1155
S. serrat	12	5	924
S. serrat			
S. ten.			
S. ten.			
P. draco	8	5	616
Immat sg	4	5	308
Total chaets			3651
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	37	16	1421	✓
Diatoms	2	10	77	✓
Dinoflag				
Noctiluca	45	1	17235	✓
Amphipods	6	10	231	✓
Atlantids	29	2	5582	✓
Cladocera	37	5	2847	✓
Copepods	316	1	121360	✓
Chaetogn.				
Dec. larv	12	10	462	✓
Doliolids	7	10	269	✓
Euphaus.	11	10	423	✓
Euph. egg				
Fish eggs				
Fish larv	4	10	154	✓
Forams				
Larvacns	14	10	539	✓
Medusae	1	100	77	✓
Ostracods	36	1	13860	✓
Polychts	20	10	770	✓
Pter. thc	28	2	2156	✓
Pter. gym				
Rads	9	10	346	✓
Salps				
Siphonoph	45	10	1732	✓
Squid	2	100	77	✓
Harpact	79	1	30415	✓
Bryozoan larv.	11	10	423	✓
Lucifer	4	10	154	✓
Barnicle cypris	2	10	77	✓
~~Bryozoan larv~~				
Amphioxus	2	10	77	✓
	28	10	1078	✓
lamellibrand larva	1	20	77	✓
~~medusa~~				
~~Squid~~				
Creseis acicula	5	20	386	✓

PLANKTON ANALYSIS

Cruise V-7
Station 20
Date 12/VIII/55
Net in 0635
Net out 0706
Position 37-55 N, 59-05 W

Equipment ½ M net
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt	1	20	37
K. pac.	4	20	148
S. calif	2	20	74
S. decip	1	20	37
S. eleg.			
S. enfl.	7	20	260
S. hex.	6	20	222
S. lyra	1	20	37
S. min.	14	10	334
S. serrat	44	10	1628
S. serrat			
S. ten.			
S. ten.			
P. draco	5	20	185
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	39	10	1443	✓
Diatoms	1	10	37	✓
Dinoflag				
Noctiluca	46	2	3510	✓
Amphipods	9	10	333	✓
Atlantids	11	10	407	✓
Cladocera	30	5	2220	✓
Copepods	286	1	10582	✓
Chaetogn.				
Dec. larv	7	10	259	✓
Doliolids	7	10	259	✓
Euphaus.	10	10	370	✓
Euph. egg				
Fish eggs				
Fish larv	4	10	148	✓
Forams				
Larvacns	38	10	1406	✓
Medusae				
Ostracods	35	1	12950	✓
Polychts	4	10	148	✓
Pter. thc	31	2	5735	✓
Pter. gym				
Rads	1	10	37	✓
Salps				
Siphonoph	34	4	5145	✓
Squid				
Harpact	125	1	4625	✓
clam larv.	6	10	222	✓
[illegible]	35	10	1295	✓
Creusiaucula	4	10	148	✓
Gastropod	3	10	111	✓
Bryozoan larv	2	10	74	✓
Amphipoda	1	10	37	✓
*	2	10	74	✓
Stomatopod	1	10	37	✓
Lucifer	1	10	37	✓
Myad	1	10	37	✓
Tetraphtea	1	10		

PLANKTON ANALYSIS

Cruise V-7
Station 21
Date 12/VIII/55
Net in 1940
Net out 2004
Position 61-10 W, 38-12 N

Equipment ½ M net
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered
Displacement vol. m^3

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt 4	2	20	55 ✓
K. pac.	2	20	55 ✓
S. calif	5	20	137 ✓
S. decip	1	20	27 ✓
S. eleg.			
S. enfl.	7	20	192 ✓
S. hex.	3	20	82 ✓
S. lyra	2	20	55 ✓
S. min.	11	20	275 ✓
S. serrat	46	20	1260 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	4	20	110 ✓
unat leg	9	20	247 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	35	10	1921 ✓	
Diatoms				
Dinoflag				
Noctiluca	33	1	18117 ✓	
Amphipods	7	10	384 ✓	
Atlantids	27	10	1482 ✓	
Cladocera	4	10	220 ✓	
Copepods	266	1	146034 ✓	
Chaetogn.				
Dec. larv	10	10	549 ✓	
Doliolids	5	10	275 ✓	
Euphaus.	8	10	439 ✓	
Euph. egg				
Fish eggs	1	10	55 ✓	
Fish larv	7	10	384 ✓	
Forams				
Larvacns	47	10	2580 ✓	
Medusae	3	10	165 ✓	
Ostracods	30	1	16470 ✓	
Polychas	17	10	933 ✓	
Pter. thc	57	5	6259 ✓	
Pter. gym				
Rads	1	10	55 ✓	
Salps				
Siphonoph	32	5	3512 ✓	
Squid	1	50		
Harpact	99	1	54351 ✓	
O	24	10	1319 ✓	
O	7	10	384 ✓	
Brachiopod larv	3	10	165 ✓	
Gastropod	26	10	1427 ✓	
Bryozoan larv	9	10	494 ✓	
Lucifer	6	10	329 ✓	
Crusis acicula	4	10	220 ✓	
Clam larv	10	10	549 ✓	
Amphipods	1	10	55 ✓	
mysid	2	10	110 ✓	

PLANKTON ANALYSIS

Cruise V-7
Station 22
Date 12/VIII/55
Net in 2140
Net out 2235
Position 61-10 W, 38-12 N

Equipment ½ M
Depth tow 0-1 M
Type tow Oblique
$M^3 H_2O$ filtered 22
Displacement vol.

Not a quantitative tow!

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	41	10	18635	
Diatoms				
Dinoflag				
Noctiluca	67	2	152238	
||| Amphipods	3	10	1363	
||| Atlantids	4	10	1818	
||| Cladocera	4	10	1818	
Copepods	100	1	454545	
Chaetogn.				
/ Dec. larv	1	10	455	
4 Doliolids	4	15	1209	
|| Euphaus.	2	15	604	
Euph. egg				
Fish eggs				
/ Fish larv	1	20	227	
Forams				
Larvacns	11	10	5000	
/ Medusae	1	20	227	
Ostracods	22	10	10000	
Polychts	15	10	6818	
Pter. thc	37 ~~35~~	10	16817	
Pter. gym				
|| Rads	2	10	909	
Salps				
Siphonoph	27	10	12272	
Squid				
* ||	2	10	909	
Harpact	43	1	195435	
|| Crisia acicula	2	10	909	
/ ||| Bryozoan larv	6	10	2727	
/ Class larv.	1	10	455	
|| ||| ◐	7	10	3182	
|| gastropods	2	10	909	
||| Trichodesmium	4	10	1818	
/ Lucifer	1	10	455	
/ Myzid	1	10	455	
|| Brachiopod larv	2	10	909	
O 5	5	10	2273	

3

PLANKTON ANALYSIS

Cruise V-7
Station 24
Date 13/VIII/55
Net in 1841
Net out 1908
Position 63-10W, 38-32 N

Equipment ½ M
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 205 m^3
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	2	10	98
K. pac.	3	10	146
S. calif			
S. decip	1	10	49
S. eleg.			
S. enfl.	3	10	146
S. hex.	4	10	195
S. lyra	1	10	49
S. min.	24	10	1170
S. serrat	23	10	1120
S. serrat			
S. ten.			
S. ten.			
P. draco	6	10	293
not sig	4	10	195
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	34	3	5546	
Diatoms	1	10	49	
Dinoflag				
Noctiluca	41	2	16660	
Amphipods	4	10	195	
Atlantids	24	10	1171	
Cladocera	4	10	195	
Copepods	177	1	8633	
Chaetogn.				
Dec. larv	3	10	146	
Doliolids	5	10	244	
Euphaus.	10	10	488	
Euph. egg				
Fish eggs				
Fish larv	1	10	49	
Forams				
Larvacns	21	10	1025	
Medusae	2	10	98	
Ostracods	44	2	10736	
Polychls	21	10	1025	
Pter. thc	66	2	2146	
Pter. gym	2	10	98	
Rads	2	10	98	
Salps				
Siphonoph				
Squid				
Harpact	101	1	4929	
gastropods	28	2	1366	
O	19	10	927	
Bryozoan larv	3	10	146	
Lucifer	2	10	98	
O	9	10	439	
Cressis acuta	11	10	537	
Bryozoan larv.	3	10	146	
Amphipods	1	10	49	
Myid	1	10	49	
Carnaria	1	100	5	
clam larv.	3	10	146	
Brachiopoda	1	10	50	

PLANKTON ANALYSIS

Cruise V-7
Station 25
Date Aug. 14, 1956
Net in 0927
Net out 0958
Position 39-55N, 64-00W

Equipment ½ M net
Depth tow
Type tow oblique
$M^3 H_2O$ filtered 245 ✓
Displacement vol. 8 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	50	8 ✓
K. pac.			
S. calif			
S. decip IIII	4	20	81 ✓
S. eleg. ~~1 juv~~	~~1~~	~~20~~	Prob. decip
S. enfl. IIIIIIII	12	20	244 ✓
S. hex. I	1	20	20 ✓
S. lyra I	1	20	20 ✓
S. min.			
III S. serrat scutt IIII	10	20	202 ✓
S. serrat. int II	2	20	40 ✓
S. ten.			
S. ten.			
P. draco I	1	50	8 ✓
S. rotall I.	1	20	20 ✓
S. rot S. II	2	20	40 ✓
S. robusta II	2	20	40 ✓
red vial S. lanceo I	1	50	8 ✓
Total chaets			
# spp.			

1 Perf 5 by bad 2056

S. r.r. in some cases looks very similar to K. subtilis because of its long narrow body.
See vial for S. r. alt.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	21	1	8571 ✓	
Diatoms				
Dinoflag				
Noctiluca	42	1	17142 ✓	
Amphipods	19	5	1515	1551
Atlantids	2	10	81 ✓	
Cladocera	11	10	449 ✓	
Cal. Copepods	170	1	69387 ✓	
Chaetogn.				
Dec. larv	2	5	166	163
Doliolids				
Euphausids	7	100	21	28
Euph. egg				
Fish eggs				
Fish larv	2	20	40 ✓	
Forams				
Larvacns	14	10	571 ✓	
Medusae	2	50	16 ✓	
Ostracods	16	5	1306 ✓	
Pel. Polyphts IIII	6	10	244 ✓	
Pter. thc	29	5	2367 ✓	
Pter. gym				
Rads	100	0.2	204081 ✓	
Salps				
Siphonoph	3	5	244 ✓	
Squid	1	20	20 ✓	
	60	1	24489 ✓	
Stomatoids II	4	20	81 ✓	
Gl. [illegible]	17	1	6938 ✓	
Stomatopod	2	20	40 ✓	
Crab megalopa	2	50	16 ✓	
Squilla	1	50	8 ✓	
Ctenophore	1	50	8 ✓	
Pteropod [illegible]	1	100	4 ✓	
Bryozoan larva	1	10	40.8	

PLANKTON ANALYSIS

Cruise V-7
Station 26
Date August 14, 1955
Net in 1754
Net out 1819
Position 40-56N, 62-55W

Equipment ½ M net
Depth tow 0- meters
Type tow oblique
$M^3 H_2O$ filtered 220 v
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.	2	5	183 ✓
S. calif			
S. decip	2	20	45 ✓
S. eleg.			
S. enfl.	16	5	1454 ✓
S. hex.			
S. lyra	2	20	45 ✓
S. min.			
S. serrat	3	20	63 68
S. serrat			
S. ten.	3	20	63 68
S. ten.			
P. draco			
Sagitta	9	20	202 ✓
Small Sag	6	5	546 ✓
S. bedoti	1	20	23 22
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	1	2	227 ✓	
Diatoms	2	10	91 ✓	
Dinoflag				
Noctiluca	42	0.2	95454 ✓	
Amphipods	4	2	909 ✓	
Atlantids	4	20	91 ~~90~~	
Cladocera				
R.B./06 Copepods	140	0.4	159 X 10^3 ✓	
Chaetogn.				
Dec. larv	10	2	2270 ✓	
Doliolids	4	10	182 ✓	
Euphaus.	3	4	341 ✓	
Euph. egg	1	20	23 ~~22~~	
Fish eggs	1	20	23 22	
Fish larv	1	10	45 ✓	
Forams	2	20	45 ✓	
Larvacns	35	2	7890	7954
Medusae	7	50	6 ✓	
Ostracods	15	2	3410 ✓	
Polychts	1	10	45 ✓	
Pter. thc	15	2	3410 ✓	
Pter. gym	1	50	9 ✓	
Rads	2	10	91 ✓	
Salps				
Siphonoph				
Squid	1	100	4.5 ✓	
RB/96 Hyperid.	100	0.4	113 X 10^3 ✓	
Larval Poly 1	1	10	45 ✓	
Larval Stucky 1	1	20	23 22	
Euphausiids	45	2	102 X 10^2 ✓	
Clione	20	.6	1540	1450

Stephalis nobile present
Tegodes present 1 - 20% 22 ✓
Lond Lipernulid 5 - 50 45 ✓
Ctenophore - 1 20% 22 ✓
Euphausiid - 2 20% 45 ✓
N. gil - 1 20 22
Stalked Crin 1 - 100 4.5 ✓

PLANKTON ANALYSIS

Cruise V-7
Station 27
Date 8/15/55
Net in 0855
Net out 0923
Position 42° 53'N ; 62° 1'W

Equipment ½ M net
Depth tow 0-300M
Type tow
$M^3 H_2O$ filtered 240
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.	4	20	83
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra	9	100	37
S. min.	2	20	41
S. serrat alt	20	10	834
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	56	0.2	116X10^3	
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	1	5	83	
Atlantids				
Cladocera				
Cal. Copepods	22	5	1830	
Chaetogn.				
Dec. larv	1	5	83	
Doliolids				
Euphaus.	29	20	604	
Euph. egg				
Fish eggs				
Fish larv				
Forams	2	20	41	
Larvacns	1	5	83	
Medusae				
Ostracods	10	5	833	
Polychts				
Pter. thc	41	5	3347	
Pter. gym				
Rads.				
Salps	1	5	83	
Siphonoph	1	5	83	
Squid				
Harpact.	13	5	1081	
Microcalanids	453	0.2	941X10^3	
Euchaeta Larv	1	5	83	
Lobothrenids	27	5	2250	
Gastropod	10	5	833	
Barnacle cyprid	1	20	20	

PLANKTON ANALYSIS

Cruise V-7
Station 28
Date 8/15/55
Net in 1740
Net out 1906
Position 42° 57'N; 61° 50' W

Equipment ½ m. net
Depth tow
Type tow
$M^3 H_2O$ filtered 234
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham. 12 mm long	1	100	4
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.	1	50	8.5
S. serrat ad	22	20	475 470
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	50	1	213 X 10^2	
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	100	21	
Atlantids				
Cladocera	9	5	769	
Copepods	78	12	167 X 10^3	
Chaetogn.				
Dec. larv				
Doliolids				
Euphausi	3	100	12 13	
Euph. egg	2	1	8.5	
Fish eggs	1	20	21	
Fish larv				
Forams				
Larvacns	15	5	1281	
Medusae	6	100	25	
Ostracods	1	20	21	
Polychts				
Pter. thc	3	5	256	
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				
Hyperet.	0			
Pontogeneia	5	5	427	
Clavelisianch	4	1	1710	

Radiolaria clumps - not in — not.

PLANKTON ANALYSIS

Cruise V-7
Station 29
Date 8/16/55
Net in 0823
Net out 0855
Position 43°48'N; 61°10'W

Equipment ½M net
Depth tow 0-300 M
Type tow
$M^3 H_2O$ filtered 277
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif	1	100	3.6
S. decip	1	50	7.2
S. eleg.			
S. enfl.	1	20	18
S. hex.	1	100	3.6
S. lyra			
S. min.	10	20	180
S. serrat atl	14	5	1010
S. serrat pac	2	20	36
S. ten.			
S. ten.			
P. draco	2	20	36
2-not leg.	1	5	72
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	349	1	125 X 10^3	
Diatoms				
Dinoflag				
Noctiluca	53	2	9550	
Amphipods				
Atlantids	6	5	432	
Cladocera				
cal. Copepods	177	1	639 X 10^2	
Chaetogn.				
Dec. larv	1	5	72	
Doliolids	1	5	72	
Euphaus.	3	5	216	
Euph. egg				
Fish eggs				
Fish larv	5	10	180	
Forams				
Larvacns	46	5	3320	
Medusae	2	5	144	
Ostracods	31	2	5590	
Holo. Polychts	3	5	216	
Pter. thc	82	4	7390	
Pter. gym	1	20	18	
Rads	1	20	18	
Salps	2	5	144	
Siphonoph	3	5	216	
Squid				
Harpact.	28	5	2020	
Lamellibranch	16	5	1155	
Gastropod	10	5	721	
Larvacean	1	20	18	

PLANKTON ANALYSIS

Cruise V-1
Station 30
Date 8/16/55
Net in 1745
Net out 1815
Position 43°18'N; 58°35'W

Equipment ½M net
Depth tow 0-300M
Type tow
M^3H_2O filtered 270
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip	1	20	18 ✓
S. eleg.			
S. enfl.			
S. hex.			
S. lyra	12	100	45 ✓
S. min.			
S. serrat adt	9	5	666 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium	37	4	3413 ✓	
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	20	55 ✓	
Atlantids				
Cladocera				
Cal. Copepods	57	.2	[illegible] ✓	
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns	4	5	296	
Medusae				
Ostracods	4	5	296	
Polychts				
Pter. thc	2	5	[illegible] ✓	
Pter. gym				
Rads	2	5	[illegible]	
Salps				
Siphonoph				
Squid				
Lamellibranch	2	5	[illegible]	
Gastropod	2	5	[illegible]	

PLANKTON ANALYSIS

Cruise V-7
Station 31
Date ~~8XX~~ 8/17/55
Net in 1751
Net out 1823?
Position 42°40'N; 60°00'W

Equipment ½M net
Depth tow 0-300 M
Type tow
$M^3 H_2O$ filtered 280
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.	5	20	89
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat	3	20	53
S. serrat			
S. ten.			
S. ten.			
P. draco			
I not say	3	20	53
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	38	10	1350	
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Cal. Copepods	125	1	447 10^2	
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.	14	50	100	
Euph. egg				
Fish eggs				
Fish larv				
Forams	1	5	71	
Larvacns	1	5	71	
Medusae	2	100	7	
Ostracods	16	5	1280	11-13
Polychts				
Pter. thc	4	5	286	
Pter. gym				
Rads	1	5	71	
Salps				
Siphonoph	1	5	71	
Squid				
[illegible]	4	5	286	
Hyperiid	3	5	214	
Deep Plankt. Decapods	1	100	14 3	

PLANKTON ANALYSIS

Cruise V-7
Station 32
Date 8/18/55
Net in 0854
Net out 0924
Position 42°21'N ; 57°7'W

Equipment ½ M net
Depth tow 0-300 M
Type tow
$M^3 H_2O$ filtered 275
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif	1	50	7
S. decip			
S. eleg.			
S. enfl.	2	50	14
S. hex.	3	100	11
S. lyra	5	50	36
S. min.			
S. serrat atl	30	5	2181
S. serrat			
S. ten.			
S. ten.			
P. draco	1	20	18
Inv. nez. pol. sat	7	5	509
Sagitta	1	50	7
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	80	0.2	145 X 10³	
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	1	5	72	
Atlantids	1	5	72	
Cladocera	1	20	18	
Copepods	115	0.2	209 X 10³	
Chaetogn.				
Dec. larv				
Doliolids	1	5	72	
Euphausiids	2	100	7	
Euph. eggs	24	1	8710	
Fish eggs	2	20	36	
Fish larv	5	100	18	
Forams				
Larvacns	2	5	145	
Medusae	1	5	72	
Ostracods	31	2	5630	
Polychts	2	5	145	
Pter. thc	21	1	7620	
Pter. gym	25	20	91	
Radio	2	20	36	
Siphon.	13	5	945	
Siphonoph	6	5	436	
Squid				
Harpact.	6	1	2180	
Gastropods	5	1	1815	
Lamellibranch	14	5	1018	
Stomatopod larv	1	1	363	
Brachiopod larva	1	20	18	

Calanus acicula part

PLANKTON ANALYSIS

Cruise V-7
Station 33
Date 8/18/55
Net in 1749
Net out 1812
Position 41°55'N; 55°25'W

Equipment ½ M net
Depth tow 0-300 M
Type tow
$M^3 H_2O$ filtered 208
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	50	9
K. pac.	1	20	24
S. calif			
S. decip			
S. eleg.			
S. enfl.	3	20	72
S. hex.	4	20	96
S. lyra	1	20	24
S. min.	12	5	1105
S. serrat adt	12	5	1105
S. serrat			
S. ten.			
S. ten.			
P. draco	3	20	72
Drift bag	3	5	288
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	249	1	119×10^3	
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	5	382	
Atlantids	1	5	96	
Cladocera	3	5	288	
Copepods	40	0.2	961×10^2	
Chaetogn.				
Dec. larv	6	20	146 144	
Doliolids	18	5	1730	
Euphausids	8	20	192	
Euph. egg				
Fish eggs				
Fish larv	3	100	14 13	
Forams				
Larvacns	47	5	4520	
Medusae	4	5	382	
Ostracods	61	4	7390	7331
Polychts	5	5	480	
Pter. thc	37	1	132×10^2	177×10^2
Pter. gym	1	20	24	
Radis				
Salps	34	5	3270	
Siphonoph	13	5	1250	
Squid				
Hoopnet	44	1	211×10^2	
Stomatopoda	3	5	288	
Nauplii				
Euthecosomata	17	4	2040	
Pteropod larv				

Copepods

Polychts

Hoopnet

PLANKTON ANALYSIS

Cruise V-7
Station 34
Date 8/19/55
Net in 0848
Net out 0919
Position 41°15'N; 52°42'W

Equipment ½M net
Depth tow 0-300M
Type tow
M^3H_2O filtered 254
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.	1	20	19.20
K. subt			
K. pac.			
S. calif			
S. decip	3	20	59
S. eleg.			
S. enfl.	1	100	39
S. hex.			
S. lyra	1	50	78
S. min.	10	20	197
S. serrat cal	12	20	236
S. serrat			
S. ten.			
S. ten.			
P. draco	2	20	39
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium	47	.4	461×10^2	
Diatoms	Coscinodiscus ex present			
Dinoflag				
Noctiluca	65	5	5110	
Amphipods				
Atlantids	1	5	78	
Cladocera	13	5	1020	
Copepods	129	1	508×10^2	
Chaetogn.				
Dec. larv	1	10	39	
Doliolids	2	5	157	
Euphaus.	6	50	47	
Euph. egg				
Fish eggs				
Fish larv	1	50	78	
Forams				
Larvacns	47	5	3700	
Medusae	2	5	157	
Ostracods	14	5	1100	
Polychts	3	5	236	
Pter. thc	46	1	181×10^2	
Pter. gym	1	20	19.20	
Rads	2	5	157	
Salps	2	5	157	
Siphonoph	12	5	944	
Squid				
Harpact.	33	1	130×10^2	
[illegible]	4	5	315	
[illegible]	9	1	3540	

Crown present
ocicula

PLANKTON ANALYSIS

Cruise V-7
Station 35
Date 8/19/55
Net in 1752
Net out 1815
Position 40°52'N; 51°07'W

Equipment ½M net
Depth tow 0-300 M
Type tow
M^3H_2O filtered 205
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt ///	3	20	73 ✓
K. pac. /	1	20	24 ✓
S. calif			
S. decip /	1	20	24 ✓
S. eleg.			
S. enfl. ////	5	20	122 ✓
S. hex. /	2	100	8 ✓
S. lyra	1	100	4 ✓
S. min.	13	20	317 ✓
S. serrat	22	20	537 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco //	2	20	49 ✓
Total chaets			
# spp.			

Beautiful specimens of D. serrat in this sample. - 2 species by counts!!

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium	46	1	22434 ✓	
Diatoms				
Dinoflag				
Noctiluca	57	2	13902 ✓	
Amphipods	2	5	195 ✓	
Atlantids	1	5	98 ✓	
Cladocera	31	5	3024 ✓	
Cal. Copepods	88	.4	107312	? not sure of decimal point
Chaetogn.				
Dec. larv	1	5	98 ✓	
Doliolids	11	5	1073 ✓	
Euphaus. ////	4	5	390 ✓	
Euph. egg				
Fish eggs	1	10	49 ✓	
Fish larv	1	10	49 ✓	
Forams				
Larvacns	46	2	12195 ✓	
Medusae	2	10	98 ✓	
Ostracods	46	5	4488 ✓	
Polychts ////	7	5	683 ✓	
Pter. thc	35	2	8536 ✓	
Pter. gym	1	100	4 ✓	
Rads				
Salps				
Siphonoph	10	5	975 ✓	
Squid				
Harpact.	78	1	38048 ✓	
Amphipodium	5	5	487 ✓	
Gastropods	10	5	975 ✓	
Dolichotis octonaria larva	1	20	24 ✓	

PLANKTON ANALYSIS

Cruise V-7
Station 36
Date 20/VIII/55
Net in
Net out
Position

Equipment
Depth tow
Type tow
$M^3 H_2O$ filtered 220 m^3
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	2	20	45 ✓
K. pac.	2	20	45 ✓
S. calif	1	20	22 ✓
S. decip	2	50	18 ✓
S. eleg.			
S. enfl.	1	20	22 ✓
S. hex.	3	20	68 ✓
S. lyra			
S. min.	7	20	159 ✓
S. serrat	6	20	136 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	3	20	68 ✓
3 [illegible]	1	100	4 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	75	5	6817 ✓	
Diatoms				
Dinoflag				
Noctiluca	51	10	3318 ✓	
Amphipods	1	10	45.45 ✓	
Atlantids	8	10	363.60 ✓	
Cladocera	4	10	181.80 ✓	
Copepods	72	1	32724 ✓	
Chaetogn.				
Dec. larv	2	10	90.90 ✓	
Doliolids	8	10	363.60 ✓	
Euphaus.	4	10	181.80 ✓	
Euph. egg				
Fish eggs	1	10	45.45 ✓	
Fish larv	1	10	45.45 ✓	
Forams				
Larvacns	24	10	1091 ✓	
Medusae				
Ostracods	33	5	2999.7 ✓	
Polychts	4	10	181.80 ✓	
Pter. thc	42	5	3818 ✓	
Pter. gym	2	20		
Rads	10	10	454 ✓	
Salps				
Siphonoph	48	10	2181.60 ✓	
Squid				
0	21	10	954.45 ✓	
Bryozoan larv.	6	10	272.70 ✓	
Harpact	33	1	149.98 ✓	
	2	10	90.90 ✓	
gastropod	2	10	90.90 ✓	
6 Stomatopods	6	100	272.70 ✓	
1 Lucifer		50	9 ✓	
1 Ophiopluteus		20		
19 rad	5	20		

PLANKTON ANALYSIS

Cruise V-7
Station 37
Date 20/VIII/55
Net in 1749
Net out 1821
Position 39-06 N, 48-38.5 W

Equipment ½ M net
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 294 m^3
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.	1	100	3 ✓
S. hex.	1	100	3 ✓
S. lyra			
S. min. ?	1	50	6 ✓
S. serrat	42	10	1429 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	27	10	918	✓
Diatoms	1	10	34	✓
Dinoflag				
Noctiluca	4	10	136	✓
Amphipods	1	10	34	✓
Atlantids	31	10	1054	✓
Cladocera				
Copepods	147	1	49980	✓
Chaetogn.				
Dec. larv	1	10	34	✓
Doliolids	2	10	68	✓
Euphausi.	30	10	1020	✓
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacens	14	10	476	✓
Medusae				
Ostracods	24	10	816	✓
Polychas	1	10	34	✓
Ptero. thc	40	4	3400	✓
Pter. gym				
Rads	6	10	204	✓
Salps				
Siphonoph	31	5	2108	✓
Squid				
Harpact	32	2	5440	✓
gastropods	11	10	374	✓
acicula	1	10	34	✓
Bryozoan larv	1	10	34	✓
Lepas Barnacle naup.	1	10	34	✓
Lucifer	1	20	17	✓

PLANKTON ANALYSIS

Cruise V-7
Station 38
Date 22/VIII/55
Net in 0891
Net out 0914, 50-14 W to 34-44 N
Position 34-45 N,

Equipment ½ M net
Depth tow 0-300M
Type tow oblique
$M^3 H_2O$ filtered 270 M^3
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	20	18 ✓
K. pac.			
S. calif	4	20	74 ✓
S. decip			
S. eleg.			
S. enfl.	1	20	18 ✓
S. hex.	11	20	204 ✓
S. lyra	1	20	18 ✓
S. min.	11	~~50~~ 10	409 ✓
S. serrat	27	10	1000 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	3	20	55 ✓
wait ray	4	20	74 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	59	5	4370 ✓	
Diatoms	9	10	148 ✓	
Dinoflag				
Noctiluca	44	2	8140 ✓	
Amphipods	4	10	148 ✓	
Atlantids	36	10	1332 ✓	
Cladocera	3	10	111 ✓	
Copepods	274	1	101360 ✓	
Chaetogn.				
Dec. larv				
Doliolids	4	10	148 ✓	
Euphaus.	2	10	74 ✓	
Euph. egg				
Fish eggs				
Fish larv	3	10	111 ✓	
Forams				
Larvacns	18	10	666 ✓	
Medusae	1	10	37 ✓	
Ostracods	30	2	5550 ✓	
Polychts	5	10	185 ✓	
Pter. thc	35	10	1295 ✓	
Pter. gym				
Rads	10	10	370 ✓	
Salps				
Siphonoph	30	5	5550 ✓	
Squid				
Gastropod	33	6	1854 ✓	
Ø	25	10	925 ✓	
Harpact	104	1	3848 ✓	
Mysid	1	10	37 ✓	
Creisis acuula	2	10	74 ✓	
Lucifer	3	10	111 ✓	
Bryozoan larv	1	10	37 ✓	
Amphiopsis	1	10	37 ✓	

PLANKTON ANALYSIS

Cruise V-7
Station 39
Date 22/VIII/55
Net in 1240
Net out 1811
Position 34-18 N, 51-23 W

Equipment ½ M
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 270
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	20	19
K. pac.	1	20	19
S. calif	6	20	110
S. decip	1	20	19
S. eleg.			
S. enfl.	1	20	19
S. hex.	3	20	56
S. lyra	4	20	74
S. min.	14	10	520
S. serrat	44	10	1630
S. serrat			
S. ten.			
S. ten.			
P. draco	7	20	130
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	50	2	9250	
Diatoms	1	10	37	
Dinoflag				
Noctiluca	29	1	10730	
Amphipods	3	10	111	
Atlantids	7	10	259	
Cladocera	24	10	888	
Copepods	195	1	72150	
Chaetogn.				
Dec. larv	3	10	111	
Doliolids	4	10	148	
Euphaus.	16	10	592	
Euph. egg				
Fish eggs	1	10	37	
Fish larv	4	10	148	
Forams	3	10	111	
Larvacns				
Medusae	1	10	37	
Ostracods	26	1	9620	
Polychls	8	10	296	
Pter. thc	32	1	11840	
Pter. gym				
Rads	2	10	74	
Salps	1	10	37	
Siphonoph	26	5	1924	
Squid				
Harpact	152	1	56240	
gastropods	28	2	5180	
Amphipods	1	10	37	
Bryozoan larv	4	10	148	
Myzid	1	10	37	
[illegible]	26	4	2405	
Cresis acicula	2	10	74	
~~Stomatopod~~				
Lucifer	1	10	37	

270

PLANKTON ANALYSIS

Cruise V-7
Station 40
Date 23/VIII/55
Net in 0846
Net out 0917
Position 33-15N, 53-37W to 33-14N - 53-38W

Equipment ½ M
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 247
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt | 11	3	10	122 ✓
K. pac.			
S. calif	2	10	81 ✓
S. decip	2	10	81 ✓
S. eleg.			
S. enfl.			
S. hex.	1	10	40 ✓
S. lyra			
S. min.	17	10	688 ✓
S. serrat	34	10	1380 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	7	10	283 ✓
S. robusta	1	20	20 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

	Group	#C	%S	#/$10^3 M^3$	Rank
	Ceratium	41	2	8299 ✓	
	Diatoms				
	Dinoflag				
	Noctiluca	30	1	12150 ✓	
|||||	Amphipods	6	10	243 ✓	
|||||||||||	Atlantids	11	10	445 ✓	
|||	Cladocera	10	10	405 ✓	
	Copepods	109	.2	220725 ✓	
	Chaetogn.				
||	Dec. larv	12	10	486 ✓	
	Doliolids				
||||||||||	Euphaus.	9	10	364 ✓	
	Euph. egg				
|	Fish eggs	2	10	81 ✓	
|||||||||||||||	Fish larv	11	10	445 ✓	
	Forams				
	Larvacns	26	5	2106 ✓	
	Medusae				
	Ostracods	28	1	11340 ✓	
	Polychts	14	10	567 ✓	
	Pter. thc	36	2	7290 ✓	
	Pter. gym				
||||||||||||||\

PLANKTON ANALYSIS

Cruise V-7
Station N1
Date 23/VIII/55
Net in 1245
Net out 1808
Position 32-53N, 55-03W

Equipment ½ M net
Depth tow 0-300
Type tow oblique
M^3H_2O filtered ~~260~~ 205
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.	1	20	24 ✓
K. subt |||	4	20	97 ✓
K. pac.			
S. calif	1	20	24 ✓
S. decip	1	20	24 ✓
S. eleg.			
S. enfl.	2	20	48 ✓
S. hex.	2	20	48 ✓
S. lyra	1	20	24 ✓
S. min.	12	20	292 ✓
S. serrat	12	20	292 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	3	20	73 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

	Group	#C	%S	#/10^3M^3	Rank
	Ceratium	40	2	9750 ✓	
1 ~~||||~~	Diatoms	6	20	146 ✓	
	Dinoflag				
	Noctiluca	36	2	8829 ✓	
~~||||~~	Amphipods	5	20	122 ✓	
	Atlantids				
||| ~~||||~~	Cladocera	8	20	195 ✓	
	Copepods	171	1	83500 ✓	
	Chaetogn.				
||| ~~||||~~	Dec. larv	8	20	195 ✓	
1	Doliolids	2	~~20~~ 50	19 ✓	
|| ~~||||~~	Euphaus.	7	20	171 ✓	
	Euph. egg				
||	Fish eggs	2	20	24 ✓	
||	Fish larv	2	20	24 ✓	
	Forams				
	Larvacns	31	10	1512 ✓	
	Medusae				
	Ostracods	23	10	1127 ✓	
1 ~~||||~~ ~~||~~	Polychts	11	20	268 ✓	
	Pter. thc	9	20	219 ✓	
	Pter. gym				
1 ~~||||~~ ~~||||~~ ~~||~~	Rads	16	20	391 ✓	
1	Salps	1	10	49 ✓	
	Siphonoph	30	10	1463 ✓	
	Squid				
	Harpact	28	1	13658 ✓	
|||	Bryozoan larv	4	20	98 ✓	
	O	24	2	5853 ✓	
|||	Lucifer	3	20	73 ✓	
1	*	1	10	49 ✓	
||	O	2	20	49 ✓	
1	crab larv	1	20	24 ✓	

PLANKTON ANALYSIS

Cruise V-7
Station 42
Date 24/VIII/55
Net in 0835
Net out 0904
Position 32-20 N, 61-30 W

Equipment ½ M
Depth tow
Type tow oblique
$M^3 H_2O$ filtered 253
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif	5	20	98 ✓
S. decip	1	20	19 ✓
S. eleg.			
S. enfl.	1	20	19 ✓
S. hex.	3	20	59 ✓
S. lyra	1	20	19 ✓
S. min.	11	20	218 ✓
S. serrat alt	6	20	118 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	8	20	157 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

	Group	#C	%S	#/$10^3 M^3$	Rank
	Ceratium	47	4	4660 ✓	
	Diatoms				
	Dinoflag				
	Noctiluca	37	10	1462 ✓	
I	Amphipods	1	10	40 ✓	
III	Atlantids	3	10	118 ✓	
~~IIII ~~IIII ~~IIII~~	Cladocera	15	10	593 ✓	
	Copepods	121	1	47795 ✓	
	Chaetogn.				
III	Dec. larv	3	10	118 ✓	
	Doliolids	2	10	79 ✓	
I ~~IIII~~	Euphaus.	6	10	237 ✓	
	Euph. egg				
	Fish eggs				
I	Fish larv	1	50	8 ✓	
	Forams				
	Larvacns	32	10	1264 ✓	
	Medusae				
	Ostracods	36	2	7110 ✓	
	Polychts	6	10	237 ✓	
	Pter. thc	36	4	3555 ✓	
	Pter. gym				
	Rads				
	Salps				
	Siphonoph	28	10	1106 ✓	
	Squid	1	100	4 ✓	
~~IIII~~	Harpact	50	1	19760 ✓	
II ~~IIII~~ ~~IIII~~ ~~IIII~~	gastropod	24	10	938 ✓	
I ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	[illegible]	21	5	1659 ✓	
I ~~IIII~~	Bryozoan larv	6	10	237 ✓	
II	Sam larv.	2	10	79 ✓	
III	Lucifer	3	10	118 ✓	
I	amphioxus	1	10	40 ✓	

PLANKTON ANALYSIS

Cruise V-7
Station 43
Date 24/VIII/55
Net in 1752
Net out 1828
Position 32-20N, 63-00W

Equipment ½ M
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 330
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt |||	3	10	91 ✓
K. pac.			
S. calif	3	10	91 ✓
S. decip	2	10	60 ✓
S. eleg.			
S. enfl.			
S. hex.	2	10	60 ✓
S. lyra	2	10	60 ✓
S. min.	24	10	730 ✓
S. serrat	30	10	912 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	10	10	303 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

	Group	#C	%S	#/$10^3 M^3$	Rank
	Ceratium	35	3	3499.6	✓
	Diatoms				
	Dinoflag				
	Noctiluca	38	1	11514	✓
|	Amphipods	5	10	152	✓
|	Atlantids	1	10	30	✓
||||	Cladocera	30	10	909	✓
	Copepods	315 ~~236~~	1	95445	✓
	Chaetogn.				
|||||	Dec. larv	7	10	212	✓
||	Doliolids	11	10	333	✓
||||	Euphaus.	9	10	273	✓
	Euph. egg				
	Fish eggs				
|||||	Fish larv	6	10	182	✓
	Forams				
	Larvacns	24	5	1454	✓
|	Medusae	1	10	30	✓
	Ostracods	29	1	8787	✓
	Polychls	15	10	455	✓
	Pter. thc	35	2	5338	✓
	Pter. gym				
||	Rads	2	10	61	✓
||	Salps	2	10	61	✓
	Siphonoph	29	5	1757	✓
	Squid				
	Harpact	~~80~~ 92	1	27876	✓
|	Clam larv	1	10	30	✓
|||||	gastropods	26	5	1576	✓
|	Stomatopod	2	10	61	✓
|	Mysid	1	10	30	✓
||||\

PLANKTON ANALYSIS

Cruise V-7
Station 45
Date 26/VIII/55
Net in 0200
Net out 0249
Position

Equipment ½ M
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 340
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	13	20	191
K. pac.	3	20	44
S. calif	4	20	59
S. decip	2	20	29
S. eleg.			
S. enfl.	4	20	59
S. hex.	3	20	44
S. lyra	2	20	29
S. min.	9	20	132
S. serrat	26	20	382
S. serrat			
S. ten.			
S. ten.			
P. draco	9	20	132
[illegible]	6	20	88
Subtotal	1	20	14
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	25	4	1838	
Diatoms				
Dinoflag				
Noctiluca	27	2	3969	
Amphipods	2	10	59	
Atlantids	4	10	118	
Cladocera	19	10	559	
Copepods	189	1	55566	
Chaetogn.				
Dec. larv	6	10	176	
Doliolids	2	10	59	
Euphaus.	12	10	353	
Euph. egg				
Fish eggs				
Fish larv	6	10	176	
Forams	2	10	59	
Larvacns	37	10	1088	
Medusae				
Ostracods	29	1		
Polychts	7	10	206	
Pter. thc	26	1	7644	
Pter. gym	1	10	29	
Rads	3	10	90	
Salps	1	10	29	
Siphonoph	49	10	1441	
Squid	1	20		
Harpact	81	1	23814	
gastropod	15	10	441	
Bryozoan lav.	19	10	559	
O	22	5	1294	
Clam larvae	3	10	88	
Creseis acicula	1	10	29	
O	10	10	294	
Euafer	2	10	59	
Amphipods	1	10	29	

PLANKTON ANALYSIS

Cruise V-7
Station 46
Date 25/VIII/45
Net in 1756
Net out 1835
Position

Equipment ½ M net
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 403
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subtil	1	20	12 ✓
K. pac.	4	20	49 ✓
S. calif	1	20	12 ✓
S. decip	4	20	49 ✓
S. eleg.			
S. enfl.	83	20	37 ✓
S. hex.	2	20	24 ✓
S. lyra	1	20	12 ✓
S. min.	7	20	87 ✓
S. serrat atl	28	20	348 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	18	20	224 ✓
Sagitta l	1	100	2 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	27	2	3348	✓
// Diatoms	2	10	50	✓
Dinoflag				
Noctiluca	62	2	7688	✓
/// ~~////~~ Amphipods	8	10	198	✓
~~////~~ Atlantids	5	10	124	✓
/// ~~////~~ ~~////~~ Cladocera	29	4	1798	✓
/// ~~////~~ ~~////~~ Copepods	269	1	66710	✓
Chaetogn.				
~~////~~ ~~////~~ Dec. larv	10	10	248	✓
/// Doliolids	4	10	99	✓
/ ~~////~~ ~~////~~ Euphaus.	11	10	273	✓
/ Euph. egg	1	10	25	✓
// Fish eggs	2	10	50	✓
// ~~////~~ Fish larv	7	10	174	✓
Forams				
Larvacns	34	3	2778	✓
/ Medusae	1	10	25	✓
Ostracods	~~56~~ 52	2	6448	✓
/// ~~////~~ Polychts	8	10	198	✓
Pter. thc	25	2	3090	✓
Pter. gym				
// Rads	8	10	198	✓
// Salps	2	10	50	✓
22 Siphonoph	28	5	1389	✓
Squid				
Harpact	126	1	31248	✓
//// ~~////~~ ~~////~~ Lucifer	14	10	347	✓
/ Mycid	1	10	25	✓
/// ~~////~~ Bryozoan larv	10	10	248	✓
/// ~~////~~ gastropod	8	10	198	✓
/ 0	8	10	198	✓
0	20	2	250	✓
Pterotracheid	1	10	25	✓
/ Creseis acicula	1	10	25	✓
// Amphioxus	3	10	74	✓
/ Clam larv	1	10	25	✓

PLANKTON ANALYSIS

Cruise V-7
Station 47
Date 26/VIII/55
Net in 0280
Net out 0415
Position 32-30N, 64-30W

Equipment ½ M
Depth tow 250-500 fm
Type tow oblique
$M^3 H_2O$ filtered 610 ~~670~~
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	28	2	2100	✓
Diatoms	1	10	15	✓
Dinoflag				
Noctiluca	33	4	1235	✓
Amphipods	2	10	30	✓
Atlantids	1	20	7.5	✓
Cladocera	10	10	149	✓
Copepods	143	1	21400	✓
Chaetogn.				
Dec. larv	3	10	45	✓
Doliolids	6	10	90	✓
Euphaus.	9	10	135	✓
Euph. egg				
Fish eggs	1	20	7.5	✓
Fish larv	5	20	37	✓
Forams	3	10	45	✓
Larvacns	25	10	365	✓
Medusae	1	20	7.5	✓
Ostracods	32	2	2400	
Polychts	14	10	210	✓
Pter. thc	26	5	780	✓
Pter. gym				
Rads	9	10	135	✓
Salps				
Siphonoph	27	4	1000	✓
Squid				
Nauplii	51	1	7600	✓
Bryozoan larv	15	10	225	✓
seed shaped ○	8	10	120	✓
Pterotracheid	2	20	15	✓
~	30	4	1120	✓
Creiis accula	5	20	37	✓
gastropod	2	10	30	✓
amphipods	1	20	7.5	✓
Clam larv.	1	10	15	✓
Lanfer	1	20	7.5	✓
Mycid	1	10	15	✓

PLANKTON ANALYSIS

Cruise V7
Station sample 1
Date 5/11/55
Net in 0048
Net out 0055
Position 32-39N, 64-23W

Equipment 1M net
Depth tow 0-25M
Type tow vert.
M^3H_2O filtered 490M³ 280
Displacement vol. 37 ml.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif	1	20	18
S. decip.			
S. eleg.			
S. enfl.			
S. hex.	3	100	11
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Eukrohnia	1	20	18
Total chaets			
# spp.	3		47

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	1	10	35	
Atlantids	1	50	7	
Cladocera				
Copepods	4	510	142	
Chaetogn.	3	20	54	
Dec. larv	1+9=12	2■	2143	
Doliolids				
Euphaus.	2	10	71	
Euph. egg	1+1+4=6	2■	1071	
Fish eggs	1	10	35	
Fish larv	1	10	35	
Forams				
Larvacns				
Medusae (+	10=11	2■	1964	
Ostracods	3	10	107	
Polychts				
Pter. thc	2	10	71	
Pter. gym				
Rads	1	10	35	
Salps	1	10	35	
Siphonoph	4	2■	714	
Squid				
insects	1	10	35	
Euphausiid	3	10	107	
Eggs	1	10	35	
	18	?	3841	

Spirula? Physonectes

Ptera curvirostra, Linscia

Eel larvae 2-100 Leptocephalus

7

PLANKTON ANALYSIS

Cruise V-7
Station 2
Date 5/VIII/55
Net in 0140
Net out 0146
Position 32-39N, 64-23W

Equipment 1 M net
Depth tow 12-50 m
Type tow oblique
$M^3 H_2O$ filtered ~~420~~ 240
Displacement vol. 2

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex. IIII	4	100	17
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
unbal lgl	1	100	4
Total chaets			
# spp.			
	2		21

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	100	16	
Atlantids II	2	100	8	
Cladocera				
Copepods	18	100	75	
Chaetogn.	5	100	20	
Dec. larv	36	100	150	
Doliolids				
Euphaus.	3	100	12	
Euph. egg IIII	5	100	20	
Fish eggs				
Fish larv IIIIIII	7	100	29	
Forams				
Larvacns				
Medusae	23	100	95	
Ostracods II	2	100	8	
Polychts				
Pter. thc II	4	100	16	
Pter. gym				
Rads I	1	100	4	
Salps III	3	100	12	
Siphonoph IIIIII	12	100	50	
Squid				
Shrimp IV	2	100	8	
Euphausid IIII	4	100	16	
Phyllirroe I	1	100	4	
Pteropod II	2	100	8	
Rhabdosphaera I	1	100	4	

Cumacea II = 2-100 8
Harpact I = 1-100 4

PLANKTON ANALYSIS

Cruise V-7
Station 13
Date 5/VIII/55
Net in 0202
Net out 0213
Position 64-23W, 32-39N

Equipment 1M net
Depth tow 25-50M
Type tow oblique
$M^3 H_2O$ filtered 770 440
Displacement vol. 8 ml

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif IIII	4	100	9.1
S. decip			
S. eleg.			
S. enfl.			
S. hex. IIIII	7	50	32
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Pant hy 1	1	50	4.6
Total chaets			
# spp.	2		46

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	8	50	36	
Atlantids	1	100	2	
Cladocera				
Copepods	19	10	432	
Chaetogn.	9	50	40	
Dec. larv	9	10	205	
Doliolids				
Euphaus.	9	50	40	
Euph. egg				
Fish eggs				
Fish larv IIII	5	10	113	
Forams				
Larvacns				
Medusae				
Ostracods IIII	5	20	56	
Polychts III	3	50	13	
Pter. thc	4	50	18	
Pter. gym				
Rads				
Salps IIII	4	50	18	
Siphonoph IIIII	= 8	10	182	
Squid 1	1	100	2	
Lightfish IIIIIIIIIIIIIIIIII	= 18	10	409	
shrimp 1	1	50	4	
Pectinid IIII	4	20	45	
Squilla II	2	50	9	
Gnat 1	1	50	4	

1 mit Stylichaetal = 50 %

1 Euvirmia 100 %

PLANKTON ANALYSIS

Cruise V-7
Station 4
Date 5/VIII/55
Net in 0220
Net out 0245
Position 32-39N, 64-23W

Equipment 1 M net
Depth tow 200-400M
Type tow vert. chs.
M^3H_2O filtered 1750 1000
Displacement vol. 1 ml
formalized

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat	1	100	1
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			1
# spp.	1		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	1	100	1	
Atlantids				
Cladocera				
Copepods	21	100	21	
Chaetogn.	1	100	1	
Dec. larv.	13	100	13	
Doliolids				
Euphaus.	1	100	1	
Euph. egg				
Fish eggs				
Fish larv	III 3	100	3	
Forams	2	100	2	
Larvacns				
Medusae				
Ostracods	IIII 4	100	4	
Polychts				
Pter. thc	2	100	2	
Pter. gym				
Rads				
Salps				
Siphonoph	6	100	6	
Squid				
[illegible]	HHT 15	100	15	
[illegible]	1	100	1	
[illegible]	IIII 4	100	4	

PLANKTON ANALYSIS

Cruise V-7
Station 6
Date 5/VIII/55
Net in 0911
Net out
Position 32-39N, 64-23W

Equipment 1/2 M net
Depth tow surface to bottom
Type tow vertical
$M^3 H_2O$ filtered
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			
	0		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

Sample not counted: contained one copepod, small brown planktic copepod, bottom squid.

PLANKTON ANALYSIS

Cruise V-7
Station 7
Date 5/VIII/55
Net in 1255
Net out 1305
Position 32-39N, 64-22W

Equipment 1 Net
Depth tow 20-60M
Type tow Oblique
M^3H_2O filtered ~~1400~~ 400
Displacement vol. 24 ml
formalized

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif	1	20	8
S. decip			
S. eleg.			
S. enfl.			
S. hex.	9	20	75
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	2	20	17
Total chaets			100
# spp.	3		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	20	~~32~~ 37	
Atlantids				
Cladocera				
Copepods	9	5	450	
Chaetogn.	124	20	150	
Dec. larv	12	5	600	
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv	4	2	500	
Forams	3	100	7	
Larvacns	2	20	25	
Medusae	3	20	37	
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads	2	20	25	
Salps	5	5	250	
Siphonoph	6	2	750	
Squid				
Euch.	15	2	1875	
mysids	13	20	162	
Phyllosoma	1	20	12	
Squilla	1	20	12	
Sagitta	5	20	62	
Pleuromamma	1	20	12	
Sagitta	6	20	75	

← 5 are copulating

PLANKTON ANALYSIS

Cruise V-7
Station 8
Date 5/4/11/55
Net in 1318
Net out 1340
Position 32-39N, 64-23W

Equipment 1 M-net
Depth tow 100-200 M
Type tow o-c oblq.
M^3H_2O filtered ~~1540~~ 880
Displacement vol. 14 ml.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt	2	20	11
K. pac.			
S. calif			
S. decip	3	20	17
S. eleg.			
S. enfl.			
S. hex.	7	2	400
S. lyra			
S. min.	3	20	17
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	10	20	57
unidentified	4	2	227
Total chaets			
# spp.	5		729

1 Sagitta ostrina in D.T. 10%

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	8	5	181	
Atlantids	2	5	45	
Cladocera				
Copepods	27	2	1533	
Chaetogn.	11	2	625	
Dec. larv				
Doliolids				
Euphaus.	4	5	90	
Euph. egg				
Fish eggs				
Fish larv	3	5	68	
Forams	2	10	22 23	
Larvacns				
Medusae	1	10	11	
Ostracods	5	5	113	
Polychts	4	10	45	
Pter. thc	2	10	22 23	
Pter. gym				
Rads	1	10	11	
Salps	4	20	22 23	
Siphonoph	10	2	569	
Squid				
gast	6	5	136	
lamp	2	5	45	
crab larva	1	100	1	
Squilla	1	50	2	
Brachyura	1	50	2	
Pteratiidae	1	20	6	

Foram in Orbulina
Leptocephalus 2 – 100 2
1 Pt. is large Discina 100%

PLANKTON ANALYSIS

Cruise V-7
Station 9
Date 5/4/11/55
Net in 1405
Net out 1420
Position 32-39N, 64-23W

Equipment 1 Miet
Depth tow 200 - 600 M
Type tow oblq. cl.
M^3H_2O filtered ~~1050~~ 600
Displacement vol. 2 ml.
formalin

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt	2	50	6.7
K. pac.			
S. calif			
S. decip	10	50	33
S. eleg.			
S. enfl.			
S. hex.	4	100	6.7
S. lyra	2	50	6.7
S. min.			
S. serrat	1	50	3.3
S. serrat	1	50	3.3
S. ten.			
S. ten.			
P. draco	4	50	13
Total chaets			
# spp.	6		73

S serrat serrat - + deep see rial
1 S deep without gut distinctive
+ S serrat serrat low sensitivity
only visible under compound scope
S. deep or gut distinct. has a few
bumps on 1st look but these look
like injection addition to the
look not an integral part of it.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods	17	1	283	
Chaetogn.	13	1	216	
Dec. larv				
Doliolids				
Euphaus.	2	50	7	
Euph. egg				
Fish eggs				
Fish larv	+8			
Forams	7	50	23	
Larvacns				
Medusae	2	50	7	
Ostracods	20	50	66	
Polychts	4	50	13	
Pter. thc	2	50	7	
Pter. gym				
Rads	1	50	3	
Salps	3	100	500	
Siphonoph	4	1	668	
Squid				
Euphr.	1	50	3	
Gastro.	2	50	7	
Cryptomastix	1	50	3	

Forams: 3 shallow, equilateral
2 rubra, ?)

Some of these forams + the gastro
are very dark as if fossilized -
contaminants?

PLANKTON ANALYSIS

Cruise V-7
Station 10
Date 5/VIII/55
Net in 1452
Net out 1535
Position 32-39N, 64-23W

Equipment 1 M net
Depth tow 600-1000 M
Type tow oblique
$M^3 H_2O$ filtered 3000 172 ov
Displacement vol. 25 ml.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham. I	1	20	2.9
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex. III	3	20	8.7
S. lyra IIII	6	5	70
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Sagitta I	1	20	2.9
Pseudosagitta III	3	20	8.7
Eukrohnia I	1	20	2.9
Total chaets			~~33~~ 98 96
# spp.	6		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	20	8 9	
Atlantids I	1	20	2 3	
Cladocera				
Copepods	57	5	662	
Chaetogn.	12	5	139	
Dec. larv				
Doliolids				
Euphaus.	3	20	8 9	
Euph. egg				
Fish eggs I	1	20	2 3	
Fish larv				
Forams IIII	4	20	11 12	
Larvacns				
Medusae				
Ostracods	6	5	69 70	
Polychts I	1	20	3 2	
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph	2	5	23	
Squid				
Cyclothone IIII	7	5	81	

Forams: Globig, Globigerinoides?, 2 trunct, 1 benthic,

PLANKTON ANALYSIS

Cruise V-7
Station 11
Date 5/4/11/55
Net in 1621
Net out 1636
Position 32-39N, 64-23W

Equipment 1 M net
Depth tow 1200 M
Type tow long. cl.
$M^3 H_2O$ filtered 1050 600 L
Displacement vol. 2 ml.
[illegible]

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt II	2	100	3.3
K. pac.			
S. calif			
S. decip II	2	100	3.3
S. eleg.			
S. enfl.			
S. hex.			
S. lyra III	3	100	5.0
S. min. II	2	100	3.3
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
[illegible] III	4	50	13
Eup.			
[illegible] II	2	100	3.3
Total chaets			31
# spp.	5		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	1			
Atlantids				
Cladocera				
Copepods	80	50	267	
Chaetogn.	11	50	37 36	
Dec. larv				
Doliolids				
Euphaus.	1	50	3	
Euph. egg				
Fish eggs	1	100	1.7	
Fish larv	[illegible]			
Forams	14	100	23	
Larvacns				
Medusae				
Ostracods	5	50	17 16	
Polychts	1	100	2 +	
Pter. thc	1	100	2 +	
Pter. gym				
Rads				
Salps				
Siphonoph	1	50	3	
Squid				
Hatchfish	1	100	2 +	
Myct. 1	1	50	3	
Telephrin	1	100	2 +	

PLANKTON ANALYSIS

Cruise V-7
Station 19 a
Date 11/4/11/55
Net in 1452
Net out 1517
Position 56-46,45 N, 36-32,31 N

Equipment 1 M net
Depth tow 0-300 M
Type tow oblique
$M^3 H_2O$ filtered 1750
Displacement vol. 77 ml

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt	2	20	10
K. pac.	1		5
S. calif	4		20
S. decip	8		40
S. eleg.			
S. enfl.	2		10
S. hex.	24		120
S. lyra	7		35
S. min.	5		25
S. serrat	1		5
S. serrat	5		25
S. ten.			
S. ten.			
P. draco	18	20	90
Total chaets			385
# spp.	10		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	2	300	
Atlantids	3	5	60	
Cladocera				
Copepods	37	1	3700	
Chaetogn.	7	1	700	
Dec. larv				
Doliolids				
Euphaus.	3	5	60	
Euph. egg				
Fish eggs				
Fish larv	2	5	40	
Forams*	1	20	5	
Larvacns				
Medusae				
Ostracods	6	5	120	
Polychts	2	5	40	
Pter. thc	11	20	55	
Pter. gym	1	20	5	
Rads	6	2	300	
Salps	2	5	40	
Siphonoph	9	1	900	
Squid				
[illegible]	7	1	700	
Lepas larv	1	5	20	
Pteropodid	1	5	20	
Tunic.	4	1	400	
Crab megalop	1	5	20	

5 Creci, Dromi gracilis, 5 pleocles, Cuvierine 1 – 20
Cydo-thone 1

* Forams: Orbulina
→ 14 removed by [illegible]

PLANKTON ANALYSIS

Cruise V-7
Station 20
Date 12/VIII/55
Net in 0635
Net out 0706
Position 37-55N, 59-05W
57 02

Equipment 1M net
Depth tow 0-300M
Type tow obl.
$M^3 H_2O$ filtered ~~175-0~~ 1240
Displacement vol. 38 ml.
formalin

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt IIII	4	20	16
K. pac. I	1	20	4.0
S. calif II	2	20	8.0
S. decip II	2	2	80
S. eleg.			
S. enfl. IIII	4		160
S. hex. IIIII	7		282
S. lyra IIII	4		160
S. min. I	1	20	4.0
S. serrat. II	1		40
S. serrat. II	1		40
S. ten.			
S. ten.			
P. draco III	3		120
Unidentified II	2	2	80
Total chaets			994
# spp.	10		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	15	2	604	
Atlantids IIII	4	2	~~312~~ 161	
Cladocera				
Copepods	37	2	1491	
Chaetogn.	24	2	967	
Dec. larv II	2		80	
Doliolids				
Euphaus.	7		282	
Euph. egg				
Fish eggs I	1		40	
Fish larv III	3		121	
Forams	24	100	23	
Larvacns				
Medusae II	2		80	
Ostracods	10		404	
Polychts I	1		40	
Pter. thc	8		322	
Pter. gym				
Rads	1		40	
Salps III	3		121	
Siphonoph	15	2	605	
Squid	1	20	4	
Amphipod II	2	2	80	
Phyllirhoe 2	2	20	8	
Squilla I	3	20	12	
Stomat	8	2	161	
Caridean Phyllosoma	2	20	8	

Phyll: 3 Pelto Crenu, 1 Dromia gracilis, 72 Carcelina 1-100
Lepas nauplii 1-20 4
Pleotrachelid 2-20 8
Phyllirohoe will plow out?
Bleochiopid larva 1-20 4
Leptocephalus 1-100 1

PLANKTON ANALYSIS

Cruise V7
Station 21
Date 12/VIII/55
Net in 1942
Net out 2002
Position 61-10W, 38-12N

Equipment 1M net
Depth tow 0-300M
Type tow obl.
M^3H_2O filtered ~~1400~~ 700 ✓
Displacement vol. 14 ml
from [illegible]

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt 11	2	20	12
K. pac.			
S. calif	3	20	18
S. decip 1+7	8	20	50
S. eleg.			
S. enfl. 11+2	5	20	30
S. hex. 1+15	16	20	100
S. lyra	7	20	44
S. minc 2	2	20	12
S. serrat pad 11,4	[illegible]	20	24
S. serrat atl 11	2	20	12
S. ten.			
S. ten.			
P. draco 9	9	20	56
Total chaets			359 ✓
# spp.	9		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	2	375 ✓	
Atlantids 1	1	2	63 ✓	
Cladocera				
Copepods	40	1	5000 ✓	
Chaetogn.	7	2	436 ✓	
Dec. larv				
Doliolids 1	1	2	63 ✓	
Euphaus.	5	2	312 ✓	
Euph. egg 1				
Fish eggs 1		5	25 ✓	
Fish larv 1	2	2	125 ✓	
Forams 1	[illegible] 15	100	~~18~~ 17	
Larvacns				
Medusae				
Ostracods 11 = 11		2	688 ✓	
Polychts				
Pter. thc	14	2	~~1500~~ 875	
Pter. gym				
Rads				
Salps	1	2	63 ✓	
Siphonoph 11+	5	1	625 ✓	
Squid				
[illegible] 1	1	5	25 ✓	
[illegible] 1	1	5	25 ✓	
[illegible] 1	1	2	63 ✓	
[illegible]	2	1	250 ✓	
[illegible] 11	2	20	12 ✓	

Pterop. [illegible] elbocrei, Diac. bugo. 1
Diac quad 1, [illegible] 1, [illegible], [illegible] 1
Lucifer 1-2 62
Pelagicanemone 1-50 25
Brachiopod larva 1-20 6
Megalopa 1-100 1
Planozoa 1-100 1
Leptocephalus 1-100 1

PLANKTON ANALYSIS

Cruise V-7
Station 24
Date 13/VII/55
Net in 1844
Net out 1905
Position 63-10W, 38-37N

Equipment 1 M net
Depth tow 0-300M
Type tow obl.
M^3H_2O filtered 1470 840 ✓
Displacement vol. 26 ml.
bruce removed

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt 1/11	4	20	24 ✓
K. pac.	2	20	12 ✓
S. calif	2		12 ✓
S. decip			
S. eleg.			
S. enfl. 11+7	12		71 ✓
S. hex. 11+4	7		42 ✓
S. lyra	3		18 ✓
S. min.			
S. serrat. 1/11	4		24 ✓
S. serrat. 1	1		5.9 ✓
S. ten.			
S. ten.			
P. draco 1 +9	10	20	59 ✓
Total chaets			288 268
# spp.	8		

CK is not 5.15 R.J.M.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	1	595 ✓	
Atlantids 1	1	1	119 ✓	
Cladocera				
Copepods	40	1	4761 ✓	
Chaetogn.	8	1		
Dec. larv				
Doliolids				
Euphaus.	2	1	951 238	
Euph. eggs				
Fish eggs 1	2	10	23 24	
Fish larv 1	1	2	59 ✓	
Forams 11	21	100	25 ✓	
Larvacns 1	1	2	59 ✓	
Medusae				
Ostracods	12	1	1428 ✓	
Polychts				
Pter. the	4	1	476 ✓	
Pter. gym				
Rads 1	1	5	23 24	
Salps 2	2	1	951 238	
Siphonoph 13	13	1	1547 ✓	
Squid				
Arenne 1	1	50	2	
Wizard 11	2	5	47	
Brandota 1	1	20	5 6	
Lanternfish 1	1	10	10 12	

Fran: nannbi: pallia,
Leptocephalus 1-100

PLANKTON ANALYSIS

Cruise V-7
Station 25
Date 14/VIII/55
Net in 0930 ~~0956~~
Net out 0956
Position 39-55N, 64-00W
58 63 57

Equipment 1 M net
Depth tow 0-300M
Type tow obl.
$M^3 H_2O$ filtered 1900 1040 ✓
Displacement vol. 62 ml.
* forams removed

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt 1	1	10	9.6
K. pac.			
S. calif 4	4	10	38 ✓
S. decip 1	1	10	9.6
S. eleg.			
S. enfl. 16	27	10	260 ✓
S. hex. 1 +2	4	10	38 ✓
S. lyra 1 +2	4	10	38 ✓
S. min.			
S. serrat 1	6	10	58 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco 1 +3	4	10	38 ✓
S. bispinosa	1	100	1.0 ✓
S. lebroti?	1	100	1.0 ✓
Total chaets			491 ✓
# spp.	11		

see vial for 1 sent, lyra, bispinosa + P. draco +
S. lebroti ??

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	7	2	337 ✓	
Atlantids				
Cladocera				
Copepods	35	2	1682 ✓	
Chaetogn.	18	2	866 ✓	
Dec. larv.	5	2	241 ✓	
Doliolids				
Euphaus.	3	2	144 ✓	
Euph. egg				
Fish eggs	1	2	48 ✓	
Fish larv	2	2	96 ✓	
*Forams	1	10	10 ~~9~~	
Larvacns				
Medusae				
Ostracods	15	2	720 ✓	
Polychts				
Pter. thc				
Pter. gym				
Rads	8	2	385 ✓	
Salps				
Siphonoph	5	10	480 ✓	
Squid				
Gastrop 1	1	2	48	
Sagitta	3	10	288 ✓	
Pteropt	2	2	96 ✓	

Euneita 2-100
Lipomelillana 2-10

*Sample says forams removed but V-7, 25 forams slide has no forams in it.

PLANKTON ANALYSIS

Cruise V-7
Station 26
Date 14/VIII/55
Net in 1758
Net out 1816
Position 45-56N, 62-55W

Equipment 1 Net
Depth tow 0-300 M
Type tow obl.
$M^3 H_2O$ filtered 1400 750 ✓
Displacement vol. 76 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt 1/11	4	10	56 ✓
K. pac. 1	1	10	13 ✓
S. calif	2	10	28 ✓
S. decip 1 + 8	9	10	125 ✓
S. eleg.			
S. enfl. +32	48	5	1340 ✓
S. hex. 4	4	10	56 ✓
S. lyra	4	10	56 ✓
S. min.	1	10	13 ✓
S. serrat	2	10	28 ✓
S. serrat 1	1	10	13 ✓
S. ten.			
S. ten.			
P. draco 1	1	10	13 ✓
[illegible] 1	1	10	13 ✓
S. [illegible] 111	3	10	42 ✓
S. [illegible] 1	1	10	13 ✓
Total chaets			1809 ✓
# spp.	12		

see vial!!

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	1	694 ✓	
Atlantids 1	1	1	139 ✓	
Cladocera				
Copepods	50	1	6944 ✓	
Chaetogn.	16	1	2222 ✓	
Dec. larv. 4	9	1	1250 ✓	
Doliolids				
Euphaus.	1	2	69 ✓	
Euph. egg				
Fish eggs				
Fish larv 11	2	1	277 ✓	
Forams 1	54	100	75 ✓	
Larvacns 111	3	5	83 ✓	
Medusae				
Ostracods	5	1	694 ✓	
Polychts 11	2	5	~~50~~ 56	
Pter. thc	10	1	1388 ✓	
Pter. gym				
Rads				
Salps				
Siphonoph 1111	7	5	194 ✓	
Squid				
[illegible] 1111	7	5	194 ✓	
[illegible] 6	6	1	831 ✓	
[illegible]	2	10	27 ✓	
[illegible]	2	5	50	
[illegible]	2	10	27 ✓	

Pt. 2, 1, 1 [illegible], [illegible], C, etc.

Tomellaria 1-5

Leptocephalus 2-100

PLANKTON ANALYSIS

Cruise V7
Station 27
Date 15/4/11/55
Net in 0858
Net out 0920
Position 42-53N, 62-07W

Equipment 1 Mnet
Depth tow 0-300m
Type tow obl.
M^3H_2O filtered 1600 880
Displacement vol. 53 = [illegible]
from [illegible]

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham. 11+15	18	10	204
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra 11=11	11	10	125
S. min.			
S. serrat 11+5=8		10	90
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets	3		419
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	7	24	199	
Atlantids				
Cladocera				
Copepods	12	10	136	
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.	77	24	2187	
Euph. egg				
Fish eggs				
Fish larv				
Forams	11-11	100	112	
Larvacns				
Medusae				
Ostracods	5=6	10	68	
Polychts				
Pter. thc	9	7	256	
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				
Gonatid squid	1	10	11	
Hydroid	1	100	1	
Ctenophore	1	100	1	

Rt is Beroeia?

PLANKTON ANALYSIS

Cruise V7
Station 38
Date 15/VIII/55
Net in 1742
Net out 1804
Position 42-57N, 61-48W

Equipment 1M net
Depth tow 0-300M
Type tow obl.
M^3H_2O filtered 1600 880 ✓
Displacement vol. 13

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham. ~~IIII~~ III	9	5	204 ✓
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.	1	20	5.7 ✓
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat ~~IIII~~ III	4	5	91 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets	3		301 ✓
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	5	91 ✓	
Atlantids				
Cladocera				
Copepods	37	5	840 ✓	
Chaetogn.	13	5	295 ✓	
Dec. larv				
Doliolids				
Euphaus.	12	5	272 ✓	
Euph. egg				
Fish eggs				
Fish larv	1	50	2 ✓	
Forams				
Larvacns				
Medusae	1	5	2223	
Ostracods	24	100	2 ✓	
Polychts				
Pter. thc	1	5	23 22	
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise V-7
Station 28
Date 15-VIII-55
Net in
Net out
Position

Equipment 1/2 M net
Depth tow 0-225 M
Type tow obl.
$M^3 H_2O$ filtered 230
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.	6	50	52
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat adt	50	50	435
S. serrat			
S. ten.			
S. ten.			
P. draco			
Immaled S. ser.	8	100	35
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	12	100	52	
Atlantids				
Cladocera	2	0.2	4391	
Copepods	7	10	304	
Chaetogn.				
Dec. larv				
Doliolids				
Euphausiids	3	0.5	26087	
Euph. eggs	5	2	1087	
Fish eggs				
Fish larv				
Forams				
Larvacns	4	0.5	3478	
Medusae				
Ostracods	1	50	87	
Polychts				
Pter. thc	1	50	87	
Pter. gym	1	50	87	
Rads				
Salps				
Siphonoph				
Squid				
Microsetella	80	0.2	173913	
Corycaeids	2	10	87	

Other copepodids 2 - 100

After stirring & sieving
2 chaets cut in half, one large calanoid &
about 10 ~~[illegible]~~ rather than 8.

PLANKTON ANALYSIS

Cruise V7
Station 29
Date 16/VIII/55
Net in 0827
Net out 0851
Position 43-48N, 61-10W

Equipment 1M net
Depth tow 0-300M
Type tow vert.
M^3H_2O filtered 1700 960
Displacement vol. 38

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham. I	1	10	10
K. subt II	2	10	21
K. pac.			
S. calif I	1	20	52
S. decip	2	10	21
S. eleg.			
S. enfl. IIII IIII	10	2	520
S. hex. I	1	25	42
S. lyra IIII+4	6	10	62
S. min. IIII+2	4	10	42
S. serrat III I	5	10	52
S. serrat ~~[illegible]~~	~~2~~	~~20~~	
S. ten.			
S. ten.			
P. draco	4	10	42
Total chaets			779
# spp.	10		

Sea bird/a 1 deep+ [illegible]

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids IIII	5	2	260	
Cladocera				
Copepods	50	2	2604	
Chaetogn.	18	2	939	
Dec. larv				
Doliolids				
Euphaus.	5	2	260	
Euph. egg				
Fish eggs				
Fish larv	4	10	42 41	
Forams III	3	2	156	
Larvacns IIII I	6	2	312	
Medusae				
Ostracods	42	2	2185	
Tow Polychts I	1	20	5	
Pter. thc	25	2	1302	
Pter. gym	1	10	10	
Rads	15	2	781	
Salps				
Siphonoph				
Squid I	1	10	10	
~~[illegible] 10~~	3	2	156	
~~Boreomysis I~~	1	20	5	
~~Myct~~	2	2	104	
~~Pleurobrachia~~	1	20	5	

Pt: Stylocheiron, Euchaeta or Paraeuchaeta?, P, Disc gracilis;
Tras: Orchestia, rubra, mediterranea
~~[illegible] Pt~~
Brachyd larva I - 20
Leptocephalus I - 100 I

PLANKTON ANALYSIS

Cruise V-7
Station 30
Date Aug. 15 55
Net in 1354
Net out 1812
Position

Equipment 1 M net
Depth tow 0-300 M
Type tow obl.
$M^3 H_2O$ filtered not given 1720
Displacement vol. 12
multiply by 2 to get rough displacement.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.	1	50	2.8
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra	62	50	172
S. min.			
S. serrat not	6	50	17
S. serrat all	1	50	2.8
S. ten.			
S. ten.			
P. draco			
Total chaets			195
# spp.	3		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	26	50	72	
Atlantids				
Cladocera				
Copepods	23	50	51	
Chaetogn.	66	50	183	
Dec. larv				
Doliolids				
Euphaus.	4	50	11	
Euph. egg				
Fish eggs				
Fish larv	1	50	3	
Forams				
Larvacns				
Medusae				
Ostracods	3	50	8	
Polychts				
Pter. thc				
Pter. gym	1	50	3	
Rads				
Salps				
Siphonoph				
Squid				
Rhyncho	1	50	3	2
Cuttlefish	1	50/100	1	

Copepods mostly Calanus cristatus
Amphipods all Pettersonia likely?

Cigarette removed by R.B.

Sample mostly 50% Amphipods & 50% Chaets by volume

PLANKTON ANALYSIS

Cruise V7
Station 31
Date 7/VIII/55
Net in 1253
Net out 1823
Position

Equipment 1 M net
Depth tow 0-300M
Type tow obl.
M^3H_2O filtered ~~2100~~ 1200 ✓
Displacement vol. 66 ml.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham. IIII	6	1	500 ✓
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra II	2	2	83 ✓
S. min.			
S. serrat ~~ad~~	1	20	4.2 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			587 ✓
# spp.	3		

See rec'd 1.2.2.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	2	166 ✓	
Atlantids				
Cladocera				
Copepods	60	1	5000 ✓	
Chaetogn.	8	1	668 ✓	
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae	1	50	2 +	
Ostracods n=11		2	458 ✓	
Polychts				
Pter. thc	5	2	208 ✓	
Pter. gym				
Rads				
Salps				
Siphonoph		20	4 ✓	
Squid				

pt = Limacina
Medusae aglantha

PLANKTON ANALYSIS

Cruise V-7
Station 32
Date 18-VIII-55
Net in 0857
Net out 0919
Position 42-21N, 57-07W

Equipment 1M net
Depth tow 0-300m
Type tow vert.
$M^3 H_2O$ filtered ~~1600~~ 880
Displacement vol. ~~32~~ 26

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.	13	20	74
S. hex.	6	20	34
S. lyra	15	20	85
S. min.			
S. serrat	18	20	102
S. serrat	2	20	11
S. ten.			
S. ten.			
P. draco	2	20	11
Total chaets			317
# spp.	5		

S. ell not at >20m.
S. lyra may include S. mac.
S. hex only stage II + 45 mm!!
Cold signature from down

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	2	170	
Atlantids	8	2	455	
Cladocera				
Copepods	21	2	1193	
Chaetogn.	16	2	910	
Dec. larv	7	2	398	
Doliolids				
Euphaus.	3	2	170	
Euph. egg				
Fish eggs				
Fish larv	4	2	227	
Forams				
Larvacns				
Medusae	5	2	284	
Ostracods	4	2	227	
Polychts	1	2	57 56	
Pter. thc	9	2	511	
Pter. gym				
Rads				
Salps	7	2	398	
Siphonoph	3	2	170	
Squid	2	50	4	
Lanella	4	100	4	
Brachyodon	2	20	11	

Siphonodell lunae 1 - 50 - 2
Cat Nanalopa 2 - 50 - 5
Physosoma 1 - 100 - 1
Cat lid lunae 1 - 100 - 1

1 deep sea land fish - Thomas Cat

PLANKTON ANALYSIS

Cruise V7
Station 33
Date 18/VIII/55
Net in 1751
Net out 1810
Position 41-55N, 55-25W

Equipment 1 M net
Depth tow 0-300M
Type tow obl.
$M^3 H_2O$ filtered 1400 960
Displacement vol. 46

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	10	13
K. pac.	1	10	13
S. calif	3	100	3.9
S. decip			
S. eleg.			
S. enfl. 1+3	4	5	106
S. hex.	7	5	184
S. lyra	4	5	106
S. min.	2	5	53
S. serrat adult 11+6=8		5	210
S. serrat juv 11=2		10	26
S. ten.			
S. ten.			
P. draco 11+2	5	5	132
Pnat key 11+	2	5	53
S. ledoti	1	100	1.3
Total chaets	10		901
# spp.			

S. serrat. See rel for S. calif + S. ledoti, P. draco extra large.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	7	1	920	
Atlantids 11	12	1	1579	
Cladocera				
Copepods	36	1	4743	
Chaetogn.	7	1	920	
Dec. larv				
Doliolids				
Euphaus.	7	1	920	
Euph. egg				
Fish eggs				
Fish larv 1		5	26	
Forams 11	2	5	52	
Larvacns 11	3	1	395	
Medusae 1	1	2	66 65	
Ostracods	12	1	1579	
Polychts				
Pter. thc	18	1	2368	
Pter. gym	2	2	131	
Rads	3	1	395	
Salps	14	1	1842	
Siphonoph 11	3	1	395	
Squid				
Lucifer 11	2	5	52	
Euphausiid 1	1	5	26	
Ostrac.	1	100	1	
Conta	1	100	1	

pt Q, P, Lucia,

Torare: Nactyphia, Ordubi
Sm Pt ae? + — pre.
Leptocephalus 1-100
Crab megalopa 1-100
Triggfish 1-100

PLANKTON ANALYSIS

Cruise V-7
Station 34
Date 19/VIII/55
Net in 0850
Net out 0917
Position 41-15N, 52-42W

Equipment 1 M net
Depth tow 0-300M
Type tow vert.
$M^3 H_2O$ filtered ~~1000 M³~~ 1020 V
Displacement vol. 36 ml.
frame removed

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham. 1111	4	10	37 V
K. subt			
K. pac.			
S. calif 1	1	20	4.6 ✓
S. decip 1 +4	6	10	56 ✓
S. eleg.			
S. enfl. 111	3	10	28 ✓
S. hex. 1 +2	3	10	28 ✓
S. lyra 11 +4	6	10	56
S. min.	2	10	18 ✓
S. serrat adult 1+6=7		10	65 ✓
S. serrat s 11=3		20	14 ✓
S. ten.			
S. ten.			
P. draco 1 +8	=9	10	83 ✓
Total chaets			390 ✓
# spp.	9		

Small for S.S.S.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	1	370 ✓	
Atlantids 111	3	1	277 ✓	
Cladocera				
Copepods	34	1	3148 ✓	
Chaetogn.	7	1	649 ✓	
Dec. larv				
Doliolids				
Euphaus.	3	1	277 ✓	
Euph. egg				
Fish eggs				
Fish larv 1	1	2	46 ✓	
Forams 11	2	2	92 ✓	
Larvacns 11	3	2	138 ✓	
Medusae 11	2	2	92 ✓	
Ostracods	8	1	740 ✓	
Polychts 1	1	2	46 ✓	
Pter. thc	14	1	1296 ✓	
Pter. gym	1	10	9 ✓	
Rads *	2	1	~~184~~ 185	
Salps 2	2	1	~~184~~ 185	
Siphonoph 11				
Squid				
Myct.	2	1	~~184~~ 185	
Oberlighted	1	20	4 ✓	
Emerita	1	20	4 ✓	

Carinaria 1 - 100 - in upper 111

Pt. Hat, 1, 1,

Formi. Orb, Hat,

* Chaet. wk per - diff 2 wks

Lyrar rarpl 1-10

9

PLANKTON ANALYSIS

Cruise V-7
Station 35
Date 19/VIII/55
Net in 1754
Net out 1812
Position 40-52N, 51-07W

Equipment 1 Mnet
Depth tow 0-300M
Type tow Oblique
$M^3 H_2O$ filtered ~~1400~~ 720
Displacement vol. 23 ml.
formalin

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt II	2	10	28
K. pac.			
S. calif I	1	100	14
S. decip			
S. eleg.			
S. enfl. IIII+II	15	10	208
S. hex. II+3	5	10	70
S. lyra	2	10	28
S. min. I+1	2	10	28
S. serrat III	4	10	56
S. serrat SS II	2	10	28
S. ten.			
S. ten.			
P. draco I+5	6	10	83
Euhetta bay I	1	10	14
S. lubbi ?	1	100	14
Total chaets			546
# spp.	8		

See notes for S. calif, S. lubbi?
S. enfl, S. lox III.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	2	416	
Atlantids				
Cladocera				
Copepods	80	2	5555	
Chaetogn.	8	2	555	
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs	8	2	555	
Fish larv	1	2	69	
Forams I+4				
Larvacns IIII	5	2	347	347
Medusae I	1	2	69	
Ostracods	12	2	832	
Polychts II	2	2	139	
Pter. thc	15	2	1041	
Pter. gym				
Rads	1	2	69	
Salps	2	2	139	
Siphonoph IIII	5	2	347	347
Squid				
Mnest	3	2	208	
Euphausiid	2	20	13	
Decapod	2	100	3	2
Adults	2	02	139	

Pt: Alg, Foram, Dinoflag, ?,
Foram acquilentale

PLANKTON ANALYSIS

Cruise V7
Station 36
Date 20/VII/55
Net in 0838
Net out 0909
Position 40-17N, 48-54W

Equipment 1 M net
Depth tow 0-300 M
Type tow oblq.
$M^3 H_2O$ filtered 1800 1240 ✓
Displacement vol. 43 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt 3+7 11	6	10	48 ✓
K. pac. 1	2	10	16 ✓
S. calif 1	1	20	4.0
S. decip 1+4	6	10	48 ✓
S. eleg.			
S. enfl.	2	10	16
S. hex. 111+4	8	10	64 ✓
S. lyra 11+1	3	10	24
S. min.	2	10	16
S. serrat adult 1	1	10	8.0
S. serrat sil	2	10	16
S. ten.			
S. ten.			
P. draco 11 ✓	11	10	89
S. chal sp? 1	1	20	4.0
Total chaets			353 ✓
# spp.	11		

See rec for S. chal sp.

S box III

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	1	2	40	
Atlantids 11	2	2	80	
Cladocera				
Copepods	80	2	3225 ✓	
Chaetogn.	11	2	444 ✓	
Dec. larv 1	1	2	40	
Doliolids				
Euphaus.	6	2	242 ✓	
Euph. egg 1	1	2	40 ✓	
Fish eggs				
Fish larv 1	1	2	40	
Forams 1164+4		2	40 ✓	
Larvacns				
Medusae				
Ostracods	9	2	363	
Tom Polychts 11	2	2	80 363	
Pter. thc	12	2	484 ✓	
Pter. gym				
Rads glob	1	20	4 ✓	
Salps	6	2	242 ✓	
Siphonoph 5	5	2	202 ✓	
Squid 1	1	20	4 ✓	
Pteropods 111	3	2	121 ✓	
Doliolids 11	2	2	80 363	
Tomopt	5	2	202 ✓	
Euenta 1	1	20	4 ✓	
Carinaria 1	1	100	1 .8	

Forms: Order.
Ophioplutens 1-20 4
Physosoma 1-100 .8
Stomatopods - 2-100 2

PLANKTON ANALYSIS

Cruise V-7
Station 37
Date 20/VIII/15-5
Net in 1751
Net out 1817
Position 39-06N, 48-38.5W.

Equipment 1M net
Depth tow 0-300M
Type tow oblique
M^3H_2O filtered ~~1800~~ 1040
Displacement vol. 89 ml.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt 11	2	10	19
K. pac.			
S. calif	1	100	0.96
S. decip	2	100	1.9
S. eleg.			
S. enfl. 1	1	10	9.6
S. hex. 1	10	100	9.6
S. lyra	3	10	29
S. min.			
S. serrat 1+8-9		10	86
S. serrat			
S. ten.			
S. ten.			
P. draco	1	10	9.6
unident. leg 1	1	10	9.6
Total chaets			175
# spp.	8		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	1	288	
Atlantids 1+1	6	2	288	
Cladocera				
Copepods	13	1	1250	
Chaetogn.	3	1	288	
Dec. larv				
Doliolids				
Euphaus.	48	1	4615	
Euph. egg				
Fish eggs				
Fish larv 1	1	10	10 9	
Forams 1+3-100	2	10	19	
Larvacns 1	1	2	48	
Medusae 1	2	2	96	
Ostracods	2	2	96	
Polychts				
Pter. thc	6	1	577	
Pter. gym 1		10	10 9	
Rads				
Salps	2	1	192	
Siphonoph 1		10	10 9	
Squid				
Lanternfish	13	100	12	
Doliolids 1	1	10	10 9	
Lepas naup. 1	1	10	10 9	

Forams: rubber, Orb.
PT.: Myt, Diiami; Peradri?, P

PLANKTON ANALYSIS

Cruise V7
Station 38
Date 22/VIII/55
Net-in 0844
Net out 0911
Position 34-45N, 50-14W
34-44N, 50-17W

Equipment 1 Mnet
Depth tow 0-300M
Type tow obl.
$M^3 H_2O$ filtered 1800 1080
Displacement vol. 17 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	3	20	14
K. pac.			
S. calif	2	20	9.1
S. decip	4	20	18
S. eleg.			
S. enfl.	2	20	9.1
S. hex.	20	20	93
S. lyra	7	20	32
S. min.	11	20	51
S. serrat	10	20	46
S. serrat			
S. ten.			
S. ten.			
P. draco	9	20	42
[illegible]	4	20	18
Total chaets			332
# spp.	9		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	8	2	370	
Atlantids	1			
Cladocera				
Copepods	25	10	2314	
Chaetogn.	13	10	1203	
Dec. larv	6	2	277	
Doliolids				
Euphaus.	8	2	370	
Euph. egg				
Fish eggs	1	5	18	
Fish larv	2	5	37	
Forams	1	2	46	
Larvacns	2	2	92	
Medusae	1	2	46	
Ostracods	15	2	694	
Polychts	2	2	92	
Pter. thc	2	5	37	
Pter. gym				
Rads	4	2	185	
Salps	2	2	92	
Siphonoph	9	1	832	
Squid	1	20	4	
[illegible]	1	5	18	
[illegible]	2	5	37	
[illegible]	7	1	649	
[illegible]	1	2	46	

From: Haetigenia
Fish egg [illegible]?
Porpita 1-10 9
Pt.: [illegible]

PLANKTON ANALYSIS

Cruise V-7
Station 39
Date 22/VII/55
Net in 1743.
Net out 1809
Position 34-18N, 51-22W to
34-18N, 51-23W

Equipment 1M net
Depth tow 0-300m
Type tow
M^3H_2O filtered 1800 1040 ✓
Displacement vol. 27 ml

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt III	3	10	29 ✓
K. pac.			
S. calif III	3	50	5.8 ✓
S. decip IIII+4	8	10	76 ✓
S. eleg.			
S. enfl.	1	20	4.8 ✓
S. hex.	8	5	150 ✓
S. lyra	5	10	48 ✓
S. min.	2	10	19 ✓
S. serrat immit	5	5	96 ✓
S. serrat serrat IIII	5	10	48 ✓
S. ten.			
S. ten.			
P. draco	6	5	116 ✓
Total chaets			573 ✓
# spp.	9		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	1	288 ✓	
Atlantids I		2	48 ✓	
Cladocera				
Copepods	17	1	1634 ✓	
Chaetogn.	13	1	1250 ✓	
Dec. larv II	2	1	192 ✓	
Doliolids				
Euphaus IIII	4	1	384 ✓	
Euph. eggs				
Fish eggs				
Fish larv I	2	2	96 ✓	
Forams I	1	1	96 ✓	
Larvacns				
Medusae				
Ostracods II=11		1	1057 ✓	
Polychts I	1	1	96 ✓	
Pter. thc IIII	5	2	241 240	
Pter. gym	1	100	1 .9	
Rads				
Salps				
Siphonoph IIII	4	1	384 ✓	
Squid				
Myct.	7	1	672 ✓	
Bryoz. II	2	5	38 ✓	
Phyllosoma	1	100	1. .9	
Nid larv	1	100	1. .9	
Nauplius	1	100	1. .9	

Myctophis - calif.

PLANKTON ANALYSIS

Cruise V-7
Station 40
Date 23/VIII/55
Net in 0849
Net out 0915
Position 33-15N, 53-37W TO 33-19N, 53-38W

Equipment 1 M net
Depth tow 0-300M
Type tow vert.
M^3H_2O filtered 1800 1040
Displacement vol. 32 ml.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt 3	3	20	14
K. pac.			
S. calif			
S. decip	13	20	62
S. eleg.			
S. enfl.			
S. hex.	16	20	77
S. lyra	4	20	19
S. min.	5	20	24
S. serrat int	14	20	67
S. serrat adt	1	20	48
S. ten.			
S. ten.			
P. draco	5	20	24
Total chaets			292
# spp.	7		

K. subt includes K. subt sip. all vid.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	2	192	
Atlantids	1	2	48	
Cladocera				
Copepods	35	2	1682	
Chaetogn.	10	2	480	
Dec. larv	3	2	144	
Doliolids				
Euphaus.	8	2	384	
Euph. egg				
Fish eggs	1	5	19	
Fish larv				
Forams				
Larvacns				
Medusae	1	5	19	
Ostracods	10	2	480	
Polychts	1	2	48	
Pter. thc	2	2	96	
Pter. gym				
Rads				
Salps	2	2	96	
Siphonoph	6	2	288	
Squid				
Luser	1	2	48	
Tomopt	6	2	288	

Oncaea venusta 3 - 20% 14
Pelagic Ostracod 2 - 100 2
Sagitta lyra 1 - 100 1

PLANKTON ANALYSIS

Cruise V-7
Station 41
Date 23/VIII/55
Net in 1746
Net out 1805
Position 32-53N, 55-03W

Equipment 1M net
Depth tow 0-300M
Type tow oblq.
M^3H_2O filtered ~~1300~~ 760
Displacement vol. 31 ml.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt ///	3	5	79
K. pac.	1	5	26
S. calif	1	20	6.6
S. decip/	1	20	6.6
S. eleg.			
S. enfl.	1	5	26
S. hex.	11=11	5	290
S. lyra	1	5	26
S. min.	4	5	106
S. serrat present	11=2	20	13
S. serrat att	1	20	6.6
S. ten.			
S. ten.			
P. draco	11 9=11	5	290
Pnut sent 2	2	20	13
Total chaets			889
# spp.	10		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	13	2	855	
Atlantids/	1	2	~~66~~ 65	
Cladocera				
Copepods	20	1	2647 ~~2632~~	
Chaetogn.	8	1	1052	
Dec. larv ///	4	2	263	
Doliolids				
Euphaus. //	2	2	131	
Euph. egg				
Fish eggs				
Fish larv ///	5	2	329	
Forams				
Larvacns //	2	2	131	
Medusae				
Ostracods	6	1	789	
Polychts	2	5	52	
Pter. thc	5	1	658	
Pter. gym				
Rads				
Salps	1	2	~~66~~ 65	
Siphonoph ///	4	1	526	
Squid				
Euphausiid ///	4	1	526	
Myct. ?	7	1	920	
Lanternfish	1	2	~~66~~ 65	
Bath.	2	5	52	
Squids	1	5	26	

Cyclosalpa present
Large Chaudacid squid present.
Bradyridens 1-20% 6.6
Pt. coil. Dextrop, Gonia,
1 Glaucus in 100% 1

PLANKTON ANALYSIS

Cruise V-7
Station 42
Date 24/VIII/55
Net in 0837
Net out 0901
Position 32-20N, 61-30W

Equipment 1 M net
Depth tow 0-300M
Type tow oblique
$M^3 H_2O$ filtered ~~1600~~ 960
Displacement vol. 22 ml.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.	~~1~~	~~20~~	
K. subt	2	20	104
K. pac.	1	20	52
S. calif	1	20	52
S. decip	6	20	31
S. eleg.			
S. enfl.	2	20	104
S. hex.	11	20	57
S. lyra	9	20	47
S. min.	2	20	104
S. serrat			
S. serrat	7	20	36
S. ten.			
S. ten.			
P. draco	4	20	20
Total chaets			231
# spp.	10		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	2	208	
Atlantids				
Cladocera				
Copepods	32	2	1666	
Chaetogn.	9	2	468	
Dec. larv				
Doliolids				
Euphaus.	1	2	52	
Euph. egg	+			
Fish eggs	1	5	21 20	
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods	6	2	312	
Polychts	2	5	42 41	
Pter. thc	3	2	156	
Pter. gym				
Radis				
Salps	1	5	21 20	
Siphonoph	4	2	208	
Squid				
Decapod larva	1	2	52	
Veliger	1	2	52	
Zoeal	2	5	42 41	

Larval squid in egg 1 - 20 ml. 5

PLANKTON ANALYSIS

Cruise V-7
Station 43
Date 24/VIII/55
Net in 1756
Net out 1824
Position 32-20N, 63-00W

Equipment 1 Net
Depth tow 0-300M
Type tow obl
M^3H_2O filtered 1120
Displacement vol. 10 ml.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt	3	20	13
K. pac.			
S. calif	2	20	8.9
S. decip	2	5	36
S. eleg.			
S. enfl.			
S. hex.	8	5	143
S. lyra	5	5	89
S. min.	2	5	36
S. serrat. int	7	5	125
S. serrat. adt	3	5	54
S. ten.			
S. ten.			
P. draco	19	5	340
Total chaets			845
# spp.	8		

K. subt. and K. adt. sep.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	2	223	
Atlantids				
Cladocera				
Copepods	34	1	3035	
Chaetogn.	7	1	625	
Dec. larv.	1	1	89	
Doliolids				
Euphaus.	7	1	625	
Euph. egg	1	1	89	
Fish eggs				
Fish larv	2	2	89	
Forams				
Larvacns				
Medusae				
Ostracods	4	1	356	
Polychts	1	2	44	
Pter. thc	2	1	178	
Pter. gym				
Rads				
Salps				
Siphonoph	6	1	536	
Squid				
Larv III	3	2	134	
Mft.	5	1	447	

PLANKTON ANALYSIS

Cruise V-7
Station 44
Date 25/VII/55
Net in 0851
Net out 0918
Position 32-30N, 64-30W

Equipment 1 M net
Depth tow 0-300M
Type tow vert.
M^3H_2O filtered ~~1800~~ 1080
Displacement vol. 22 ml.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt	9	10	83
K. pac.			
S. calif	3	10	28
S. decip	4	10	37
S. eleg.			
S. enfl.	1	10	9.3
S. hex.	9	10	83
S. lyra	18	10	166
S. min.	2	10	19
S. serrat			
S. serrat juv	1	10	9.3
S. ten.			
S. ten.			
P. draco	9	10	83
Total chaets			518
# spp.	9		

2 Dmax regl bod

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	9	2	416	
Atlantids	1	5	18	
Cladocera				
Copepods	43	2	1990	
Chaetogn.	14	2	648	
Dec. larv				
Doliolids				
Euphaus.	8	2	370	
Euph. egg				
Fish eggs	1	10	9	
Fish larv	1	2	46	
Forams				
Larvacns				
Medusae				
Ostracods	4	2	185	
Polychts	3	2	138	
Pter. thc	4	2.5	74	
Pter. gym				
Rads				
Salps	8	2	370	
Siphonoph	3	2	138	
Squid				
Dayole	1	2	46	
Lucifer	7	2	324	
Sagitta	1	2	46	
Thysanoet	3	2	138	
Juvenil squid	1	20	4	

PLANKTON ANALYSIS

Cruise V-7
Station 46
Date 26/VIII/55
Net in 0208
Net out 0242
Position 32-30N, 64-30W

Equipment 1 meter
Depth tow 0-300m
Type tow vert.
$M^3 H_2O$ filtered ~~2300~~ 1360
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt	3	10	22
K. pac.			
S. calif	1	10	7.4
S. decip	8	10	59
S. eleg.			
S. enfl.	4	10	29
S. hex.	16	10	118
S. lyra	13	10	96
S. min.	2	10	15
S. serrat	1	10	7.4
S. serrat	1	10	7.4
S. ten.			
S. ten.			
P. draco	27	10	200
Immature	4	10	30
Total chaets			591
# spp.	9		

See mid for Sam, Sratt.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	1	294	
Atlantids				
Cladocera				
Copepods	50	1	3676	
Chaetogn.	7	1	516	
Dec. larv				
Doliolids				
Euphaus.	6	1	441	
Euph. egg				
Fish eggs				
Fish larv	5	1	367	
Forams	9	1	661	
Larvacns				
Medusae				
Ostracods	16	1	1176	
Polychts				
Pter. thc	3	1	221	
Pter. gym				
Rads				
Salps				
Siphonoph	5	1	367	
Squid				
[illegible]	1	1	73	
[illegible]	1	1	73	
[illegible]	1	1	73	
[illegible]	3	1	221	
[illegible]	1	1	73	
Harpact	6	1	441	

Form: [illegible]

Sample has many deep organisms
Inter bite it.

PLANKTON ANALYSIS

Cruise V-8
Station 1
Date 10 Nov. 55
Net in 2000
Net out 2022
Position

Equipment 1 M net
Depth tow 300M
Type tow
$M^3 H_2O$ filtered 1040
Displacement vol.

CHAETOGNATHA

Species		#C.	%S.	#/$10^3 M^3$
+E. ham.	x			
+K. subt	x			
+K. pac.	x			
+S. calif	x			
+S. decip	x	4	20	19
√S. eleg.				
+S. enfl.	x	25	20	120
+S. hex.	x	1	20	4.8
+S. lyra	x	9	20	43
√S. min.				
+S. serrat. mall	x	1	20	4.8
+S. serrat	x			
S. ten.	x			
S. ten.				
+P. draco	x	2	50	3.8
Total chaets	x			195
# spp.		6		

See nil for S. serr

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	5	57	
Atlantids				
Cladocera				
Copepods	19	2	913	
Chaetogn.	8	2	384	
Dec. larv	2	5	38	
Doliolids				
Euphaus.	7	2	336	
Euph. egg				
Fish eggs				
Fish larv	3	2	146	144
Forams				
Larvacns				
Medusae	1	10	19	
Ostracods	2	5	38	
Polychts				
Pter. thc	5	5	96	
Pter. gym	1	5	19	
Rads				
Salps				
Siphonoph	3	2	146	144
Squid				
Rhynchot	1	20	5 4	
Tomopt	4	2	192	
Oc. mysl	1	5	19	
Nem	3	10	28	
Sil. hemi	2	100	1	

PLANKTON ANALYSIS

Cruise V-8
Station 3
Date
Net in
Net out
Position

Equipment
Depth tow
Type tow
$M^3 H_2O$ filtered
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			
	0		

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

Not done because ½ M + 1 M samples mixed together.

PLANKTON ANALYSIS

Cruise V-8
Station 5
Date 25 Nov. 55
Net in 1903
Net out 1952
Position 17-5.8N, 71-37.0W

Equipment 1M net
Depth tow 457M
Type tow oblique
M^3H_2O filtered 1960
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif	1	20	2.6
S. decip	14	20	36
S. eleg.			
S. enfl.	48	20	122
S. hex.	9	20	23
S. lyra	4	20	10
S. min.			
S. serrat adult	3	20	7.6
S. serrat juv	4	20	10
S. ten.			
S. ten.			
P. draco	6	20	15
Sagitta spp.	2	20	5.1
Total chaets			231
# spp.	8		

Self not > 20 mm
S. vel? & S. lyra varied
from 100% - see vol.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	3	153	
Atlantids				
Cladocera				
Copepods	80	1	4081	
Chaetogn.	7	1	357	
Dec. larv	8	5	81	
Doliolids	1	5	10	
Euphaus	8	2	204	
Euph. egg				
Fish eggs				
Fish larv	6	5	61	
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts	5	5	51	
Pter. thc	2	5	20	
Pter. gym				
Radis				
Salps	1	5	10	
Siphonoph	8	2	204	
Squid	1	50	1	
Sagitta elegans	2	20	5	
Sagitta enflata	8	5	81	
Phronima	1	5	10	
Pontellids	1	5	10	
Hyperiid	3	2	76	
Squilla	1	5	10	
?Hydroid	1	5	10	
Leptocephal	2	100	1	

PLANKTON ANALYSIS

Cruise V-8
Station 6
Date 26 Nov 55
Net in 0131
Net out 0211
Position

Equipment 1 M net
Depth tow 457M
Type tow oblq.
$M^3 H_2O$ filtered 1600
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	20	3
K. pac.			
S. calif			
S. decip	4	20	12
S. eleg.			
S. enfl.	32	10	200
S. hex.	7	10	44
S. lyra	1	10	6.2
S. min.			
S. serrat juv	2	50	2.5
S. serrat			
S. ten.			
S. ten.			
P. draco	16	10	100
Sagitta	2	20	6.2
Total chaets			374
# spp.	8		

~~Sagitta~~ 11
see mid log & alt + mid sub.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	2	156	
Atlantids	1	2	31	
Cladocera				
Copepods	46	1	2875	
Chaetogn.	6	1	375	
Dec. larv	4	3	125	
Doliolids	1	5	12	
Euphaus	16	2	500	
Euph. egg	2	2	62	
Fish eggs				
Fish larv	3	2	93	
Forams	3	5	37	
Larvacns				
Medusae				
Ostracods	4	2	125	
Polychts				
Pter. thc	3	2	93	
Pter. gym				
Rads	1	2	31	
Salps	1	5	12	
Siphonoph	5	5	62	
Squid				
Squill	1	10	6	
Lyncaeus	1	10	6	
Euchaeta	4	5	50	
Euchirella	2	5	25	
Rhincalanus	1	10	6	
Megalopa	1	10	6	
Harpact	2	5	25	

Large lamp - see list 2-100 1
Atlantidae 1-100 .6
Pathtil larv 1-20 3

PLANKTON ANALYSIS

Cruise V-8
Station 7
Date 26 Nov. 55
Net in 0925
Net out
Position

Equipment 1 M-net
Depth tow 915M
Type tow obl.
$M^3 H_2O$ filtered 4040 ✓
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt	2	20	2.5 ✓
K. pac.			
S. calif			
S. decip	5	10	12 ✓
S. eleg.			
S. enfl.	27	10	67 ✓
S. hex.	1	10	2.5 ✓
S. lyra	9	10	22 ✓
S. min.			
S. serrat adl	3	50	1.5 ✓
S. serrat juv	2	50	1.0 ✓
S. ten.			
S. ten.			
P. draco	3	20	3.7 ✓
Sagitta 1	1	20	1.2 ✓
Sagitta 11	2	20	2.5 ✓
Total chaets			116 ✓
# spp.	9		

See rev.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	5	10 9	
Atlantids 11	22	5	109 ✓	
Cladocera				
Copepods	35	1	866 ✓	
Chaetogn.	15	2	148	185
Dec. larv 11	2	5	10 9	
Doliolids 1	1	5	5 4	
Euphaus.	7	2	81	86
Euph. egg				
Fish eggs				
Fish larv 11	7	5	34 ✓	
Forams IIII	6	5	29 ✓	
Larvacns				
Medusae				
Ostracods	5	25	25 24	
Polychts 1	1	5	5 4	
Pter. thc	5	5	25 24	
Pter. gym				
Rads	5	5	25 24	
Salps	3	5	15 14	
Siphonoph 11	9	2	49 ✓	
Squid 1	1	5	5 4	
[illegible] 111	4	5	19 ✓	
[illegible] 11	2	2	25 24	
[illegible] 11	2	5	10 9	
[illegible] 1	1	5	5 4	
[illegible]	1	5	5 4	
[illegible]	1	5	5 4	

PLANKTON ANALYSIS

Cruise V-8
Station 8
Date 27 Nov. 55
Net in 0215
Net out 0219
Position

Equipment 1M net
Depth tow 457M
Type tow
M^3H_2O filtered 1760
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt			
K. pac.	1	20	2.8
S. calif			
S. decip	3	10	17
S. eleg.			
S. enfl.	24	5	270
S. hex.	2	10	11
S. lyra	1	10	5.7
S. min.			
S. serrat adult	2	10	11
S. serrat juv	1	10	5.7
S. ten.			
S. ten.			
P. draco	5	10	28
S. robusta	1	10	5.7
Total chaets			357
# spp.	8		

See vial.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	9	5	102	
Atlantids				
Cladocera				
Copepods	32	1	2102	
Chaetogn.	10	1	568	
Dec. larv	1 = 2	5	23 22	
Doliolids				
Euphaus.	27	5	306	
Euph. egg	1	5	11	
Fish eggs				
Fish larv	4	1	227	
Forams				
Larvacns				
Medusae	1 = 2	5	23 22	
Ostracods	6	5	68	
Polychts				
Pter. thc	1 = 1	5	125	
Pter. gym				
Rads				
Salps	15	5	170	
Siphonophores	8	1	455	
Squid				
Acartia	3	5	34	
Platydiid	1	5	11	
Pteropod	1	10	6 5	
Barnacle	1 = 2	10	11	
Megalopa	1	5	11	
Polyplacophora	1	5	11	
Gastropod	1	5	11	
Lepas anas	2	10	11	
Lepas fascicularis	1	10	5.7	
Leptocephalus	3-100		1.7	
Flying fish	2-100		1.1	
Juvenile fish?	3-100		1.7	
See Chaet vial for Cephalopoda?				
Octopods	2-100		1	
Physalia	1-100		.6	

PLANKTON ANALYSIS

Cruise V-8
Station 9
Date 27 Nov 55
Net in 1826
Net out
Position

Equipment 1 m net
Depth tow 457 M
Type tow oblq
M^3H_2O filtered
Displacement vol. 1360 cc

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt	2	20	7.4
K. pac.			
S. calif			
S. decip	6	20	22
S. eleg.			
S. enfl.	19	10	140
S. hex.	1	20	3.7
S. lyra	3	20	11
S. min.			
S. serrat	2	20	7.4
S. serrat immat	4	20	15
S. ten.			
S. ten.			
P. draco	17	20	62
Sagitta	2	20	7.4
Total chaets			276
# spp.	8		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	10	2	367	
Atlantids	3	10	22	
Cladocera				
Copepods	48	1	3529	
Chaetogn.	6	1	441	
Dec. larv	=2	10	15 +H	
Doliolids				
Euphaus.	15	2	550	
Euph. egg				
Fish eggs	1	10	7	
Fish larv	109	10	73	
Forams	3	10	22	
Larvacns	1	10	7	
Medusae	=2	10	15 +H	
Ostracods	3	2	110	
Polychts	=2	10	15 +H	
Pter. thc	7	2	257	
Pter. gym				
Rads				
Salps	2	2	73	
Siphonoph	4	2	147	
Squid				
Thysan	2	1	147	
Amphipoda	3	10	22	
Stomatopod	1	100	.7	
Leptocephalus	1	100	.7	

PLANKTON ANALYSIS

Cruise V-8
Station 10
Date 28 Nov. 55
Net in 1634
Net out
Position

Equipment 1 M net
Depth tow
Type tow obl.
$M^3 H_2O$ filtered 1440
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt	7	20	24
K. pac.	1	20	3.5
S. calif			
S. decip	11	20	39
S. eleg.			
S. enfl.	26	10	180
S. hex.	6	20	20
S. lyra	6	20	20
S. min.			
S. serrat	1	20	3.5
S. serrat	1	20	3.5
S. ten.			
S. ten.			
P. draco	12	10	83
Sagitta	1	20	3.5
Total chaets			380
# spp.	9		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	7	5	97	
Atlantids				
Cladocera				
Copepods	40	1	2777	
Chaetogn.	10	1	695	
Dec. larv	5	5	69	
Doliolids				
Euphaus.	26	5	361	
Euph. egg				
Fish eggs				
Fish larv	1	5	14 13	
Forams	8	5	121 111	
Larvacns				
Medusae	2	5	27	
Ostracods	7	5	97	
Polychts	1	50	1	
Pter. thc	1	5	14 13	
Pter. gym				
Rads	7	5	97	
Salps	6	5	83	
Siphonoph	3	1	208	
Squid				
Lucifer	3	5	42 41	
Stomopt	6	5	83	
Sinitod	1	100	.7 .6	
Centrophor	1	100	.7 .6	

PLANKTON ANALYSIS

Cruise V-8
Station 11
Date 29 Nov. 55
Net in 2420
Net out 2450
Position

Equipment 1M net
Depth tow
Type tow oblique
$M^3 H_2O$ filtered 1440
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt.	8	20	28
K. pac.			
S. calif			
S. decip	16	10	110
S. eleg.			
S. enfl.	21	10	146
S. hex.	6	10	42
S. lyra	2	10	14
S. min.			
S. serrat.	2	10	14
S. serrat.	1	20	3.5
S. ten.			
S. ten.			
P. draco	2	10	76
Sagitta	1	20	3.5
Sagitta	2	20	7.0
Total chaets			444
# spp.	8		

Sagitta is Sagitta elegans in all Van samples (74 #)
1 clump P. draco eggs 2 oz.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	5	27	
Atlantids	1	5	14	
Cladocera				
Copepods	80	2	2777	
Chaetogn.	18	2	625	
Dec. larv.	4	5	55	
Doliolids				
Euphaus.	15	2	521	
Euph. egg				
Fish eggs				
Fish larv.	1	5	14	
Forams	5	5	69	
Larvacns				
Medusae	2	5	27	
Ostracods	5	5	69	
Polychts	4	5	55	
Pter. thc	8	5	114	
Pter. gym				
Radis	5	5	69	
Salps	5	5	69	
Siphonoph.	5	5	69	
Squid	1	5	14	
Euphausiid	5	5	69	
Planula	1	5	14	
Larvacid	6	2	208	

chopped May 1-5

PLANKTON ANALYSIS

Cruise V-8
Station 12
Date 29 Nov. 55
Net in 17 05
Net out 1746
Position

Equipment 1 Net
Depth tow
Type tow obl.
$M^3 H_2O$ filtered 1640 v
Displacement vol.
80 70 sample

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt //'	3	20	9.2
K. pac.			
S. calif			
S. decip	3	20	9.2
S. eleg.			
S. enfl.	24	5	290
S. hex.	6	20	18
S. lyra	4	20	12
S. min.			
S. serrat adt.	1	20	3.0
S. serrat immat	3	20	9.2
S. ten. juv?	1	20	3.0
S. ten.			
P. draco	5	20	15
Sagitta //	2	100	1.2
Total chaets			370
# spp.	9		

Sagitta for 3 to lid of bed!!

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	2	91	
Atlantids	2	5	24	
Cladocera				
Copepods	100	2	3048	
Chaetogn.	22	2	670	
Dec. larv ////	3	2	91	
Doliolids				
Euphaus.	25	2	760	
Euph. eggs /	1	5	12	
Fish eggs /	1	5	12	
Fish larv ////	6	5	73	
Forams /	1	5	12	
Larvacns				
Medusae //	2	2	61	
Ostracods	5	2	152	
Polychts				
Pter. thc	3	2	91	
Pter. gym				
Rads	2	2	61	
Salps	6	2	183	
Siphonophore ////	8	2	244	
Squid				
Carinaria	1	100	.6	
Euchaeta ////	4	2	122	
Pleurobrachia /	1	100	.6	
Chiroteuthis /	1	5	12	
Myctophid	2	2	61	

Pt. indica Crisia!!
Flat bottom 1-100

PLANKTON ANALYSIS R. Bieri

Cruise V-8
Station 13
Date 30 Nov. 55
Net in 2030
Net out
Position

Equipment 1 M net
Depth tow
Type tow obl.
$M^3 H_2O$ filtered 1600
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	4	10	25
K. pac.			
S. calif			
S. decip	21	10	130
S. eleg.			
S. enfl.	26	10	160
S. hex.	5	10	30
S. lyra	11	10	69
S. min.			
S. serrat			
S. serratodentata	2	10	12
S. ten.			
S. ten.			
P. draco	5	10	30
Sagitta	3	50	3.8
Total chaets			460
# spp.	8		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	5	50	
Atlantids				
Cladocera				
Copepods	45	2	1406	
Chaetogn.	28	2	875	
Dec. larv	5	5	62	
Doliolids	1	5	12	
Euphausi	13	2	406	
Euph. egg				
Fish eggs	1	5	12	
Fish larv	3	2	93	
Forams	2	5	25	
Larvacns				
Medusae	1	5	12	
Ostracods	3	5	37	
Polychts	1	5	12	
Pter. thc	2	5	25	
Pter. gym				
Radis	14	5	175	
Salps	4	5	50	
Siphonoph	4	2	125	
Squid				
Phyllodoce	1	5	12	
Euphausiid L	6	5	75	
Chaetopterus	1	5	12	
Alciopid	1	5	12	
Ophiuroid larvae	2	5	25	
Harpact	3	5	37	
Lizardfish	1	50	1	
Midwater " "	1	50	1	

PLANKTON ANALYSIS Jack Close.

Cruise V-8
Station 13
Date 30 Nov. 55
Net in 2030
Net out
Position

Equipment 1 M net
Depth tow
Type tow oblq.
$M^3 H_2O$ filtered
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.	0		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	5	37	
Atlantids				
Cladocera				
Copepods	130	5	1625	
Chaetogn.	47	5	589	
Dec. larv				
Doliolids				
Euphausi	43	5	538	
Euph. egg				
Fish eggs				
Fish larv	IIII+5	5	62	
Forams IIII	4	5	50	
Larvacns				
Medusae III	3	5	37	
Ostracods	4	5	50	
Polychts				
Pter. thc	1+2=3	5	37	
Pter. gym				
Rads	6	5	75	
Salps	12	5	150	
Siphonoph IIII IIII II	12-5		150	
Squid				
Euchaeta IIII II	7	5	87	
mantis	1	5	12	
polychaet larva	1	5	12	
terebrachid	1	5	12	
Harpact	1	5	12	

PLANKTON ANALYSIS

Cruise V-8
Station [redacted] 14
Date 1 Dec. 55
Net in 1100
Net out
Position

Equipment 1 Mnet
Depth tow
Type tow obl.
$M^3 H_2O$ filtered 1600
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt IIII	5	10	31
K. pac.			
S. calif			
S. decip	10	10	63
S. eleg.			
S. enfl.	13	10	80
S. hex.	10	10	63
S. lyra	8	10	50
S. min.			
S. serrat			
S. serrat juv	1	20	3.1
S. ten.			
S. ten.			
P. draco	6	10	38
S. neriedis II	2	20	6.2
S. robusta II	2	20	6.2
Total chaets			340
# spp.	8		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	5	25	
Atlantids				
Cladocera				
Copepods	70	5	875	
Chaetogn.	23	5	287	
Dec. larv	2	5	25	
Doliolids				
Euphaus	7	5	87	
Euph. egg				
Fish eggs				
Fish larv				
Forams III	4	5	50	
Larvacns				
Medusae ~~IIII~~	=6	5	75	
Ostracods	3	5	37	
Polychts I	1	5	12	
Pter. thc	1	5	12	
Pter. gym				
Rads	12	5	150	
Salps	1	5	12	
Siphonoph ~~IIII~~	8	5	100	
Squid				
Platytroch I	1	5	12	
Euchaet II	2	5	25	
Pleuromamma	3	5	37	
Scolecithrix	1	5	12	
Clausocalanus	2	50	2	
Spinocalanus	1	10	6	
Lucic. lem	1	50	1	
Platylichn lem	1	100	.6	
Polymelate lem	1	20	3	
nectan. sp. lem	1	20	3	
Megalopa	1	20	3	

PLANKTON ANALYSIS

Cruise V8
Station 15
Date Dec. 2, 1955
Net in 0600
Net out 0615
Position 3 mi S pen. and 1 mi W of 24
9-34.4N, 79-46.4W

Equipment 1/2 M net
Depth tow 0-2 meters
Type tow Horiz.
$M^3 H_2O$ filtered 15 600
Displacement vol.

386 of sample set aside = .0622

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.	1	100	~~107~~ 27
S. calif			
S. decip			
S. eleg.			1480
S. enfl.	11	20	~~5700~~
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			2950
S. ten.	22	20	~~4700~~
S. ten.			
P. draco			
S. kimi	4	100	~~428~~ 107
S. bedfordi	4	100	~~428~~ 107
Total chaets			
# spp.	5		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	1 per	100	6.4x10³	27 9
Diatoms	30	.05	6.4x10⁶	1
Dinoflag			334000	
Noctiluca	1 per	100	6.4x10⁴	27 3
Amphipods	5	5	10,700	2468 7
Atlantids	2	10	2140	538 12
Cladocera	1	10	1070	269 13
Copepods	48	2	260,000	64309 2
Chaetogn.	17	5	36,000	9099 4
Dec. larv	13	10	14,000	3492 6
Doliolids				
Euphaus.				
Euph. egg				
* Fish eggs	3	10	3210	809 11
Fish larv	1	5	215	14
Forams	1	10	1070	269 13
Larvacns	1	10	1070	269 13
Medusae	1	10	1070	269 13
Ostracods				
Polychts	4	10	4300	1076 10
Pter. thc	10	5	21,400	5336 5
Pter. gym				
Rads	9	10	9600	2421 8
Salps				
Siphonoph	2	10	2140	538 12
Squid				
Zooeas	13	10	14,000	3492 6
Megalops	10	10	10,700	2695 7
Luciferids	13	10	14,000	3492 6
Euphausiids	2	10	2140	538 12
Stomatopod	1	10	1070	269 13

* one is anchovy egg

Very small plant material and detritus are not count, not part. because make the meal up, but estimate may make up 10% of sample.

Other entries: diatoms 20 in, 25 %
→ Chaetoceros and Rhizosolenia

Ptropods:
Creseis acicula 7 in 5% 3100
Peraclis 6 in 10 1100
misc. 1 in 10 369

☆ ◠ = ◡ = ◯
dout. Ind dum.

PLANKTON ANALYSIS

Cruise V-8
Station 16
Date 7 Dec. 55
Net in 0630
Net out 0715
Position

Equipment 1 M net
Depth tow
Type tow obl.
M^3H_2O filtered 1800 ✓
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt 111	3	20	8.3 ✓
K. pac.			
S. calif			
S. decip	12	10	67 ✓
S. eleg.			
S. enfl.	30	10	166 ✓
S. hex.	2	20	5.6 ✓
S. lyra	3	10	16 ✓
S. min.			
S. serrat juv	3	10	16 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	9	10	50 ✓
Sagitta 11	2	20	5.6 ✓
Total chaets			334 ✓
# spp.	8		

1 Sagitta is diff from other!!

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium	Prob.	dropped	stay	not V-8, 17
Diatoms	stay	thread-like	not	Rhizosol.
Dinoflag				
Noctiluca				
Amphipods	3	5	33 ✓	
Atlantids	1	5	11 ✓	
Cladocera				
Copepods	116	5	1288 ✓	
Chaetogn.	35	5	390 ✓	
Déc. larv	6	5	67 66	
Doliolids				
Euphaus.	7	5	78 77	
Euph. egg				
Fish eggs				
Fish larv 111	3	20	8 ✓	
Forams 1111 1111	17	5	189 ✓	
Larvacns 11	2	5	22 ✓	
Medusae 11	3	5	33 ✓	
Ostracods	5	5	55 ✓	
Polychts				
Pter. thc	5	5	55 ✓	
Pter. gym				
Rads	12	5	133 ✓	
Salps	2	5	22 ✓	
Siphonoph 111	5	5	55 ✓	
Squid				
Sagitta 11	2	5	22 ✓	
Veliger	5	5	55 ✓	
Osteichthyes	1	20	3 2	
Flagstaff 11	2	20	5 ✓	
Anomalous? 11	2	20	5 ✓	
Chopped hay	1 - 5		11 ✓	
Mungo sediment	1 - 100		.5	

→ Fair 1 - 20
→ Arachnoidiscus of Coscinodiscus
photosynthesis via Hemingway

PLANKTON ANALYSIS

Cruise V-8
Station ~~8 Dec 55~~ 17
Date 8 Dec 55
Net in 0725
Net out
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 1960
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	5	20	13
K. pac.	1	20	2.6
S. calif			
S. decip	22	20	56
S. eleg.			
S. enfl.	36	20	92
S. hex.	11=11	20	28
S. lyra	8	20	20
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	5	20	13
Sagitta microdenis	1	100	.5
Sagitta bipunctata	2	100	1.0
Total chaets			226
# spp.	7		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	5	20	
Atlantids	3	5	30	
Cladocera				
Copepods	25	2	639	
Chaetogn.	12	2	306	
Dec. larv	1	10	5	
Doliolids				
Euphaus.	5	5	51	
Euph. egg				
Fish eggs	1	5	10	
Fish larv	1	5	10	
Forams	22	5	224	
Larvacns				
Medusae	1	5	10	
Ostracods	4	5	40	
Polychts	1	5	10	
Pter. thc	6	5	61	
Pter. gym	1	10	5	
Rads	5	5	51	
Salps	6	5	61	
Siphonoph	6	5	61	
Squid	1	100	.5	
Ophiopluteus	1	5	10	
Vargula	3	2	76	
Lucifer	2	10	10	
Megalopa	1	100	.5	

Chopped Hay bundle III – 5.
↓
absorbed up + displaced in sample. see N-P, 16
Metamorphosed cirripeds 1 – 20

Desmopteris

PLANKTON ANALYSIS

Cruise V-8
Station 18
Date 9 Dec. 55
Net in 1223
Net out 1307
Position

Equipment 1M
Depth tow
Type tow Oblq.
$M^3 H_2O$ filtered 1760
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	5	10	28
K. pac.			
S. calif			
S. decip	13	10	74
S. eleg.			
S. enfl.	37	10	210
S. hex.	8	10	46
S. lyra	4	10	22
S. min.			
S. serrat adt	1	10	57
S. serrat imat	2	10	11
S. ten.			
S. ten.			
P. draco	11=11	10	62
Total chaets			459
# spp.	7		

S. serrat Grey head 1-20
S. serrat Grey head 2-20

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	2	57 56	
Atlantids	1	2	28	
Cladocera				
Copepods	45	2	1278	
Chaetogn.	26	2	738	
Dec. larv	4	2	113	
Doliolids	1	2	28	
Euphaus.	9	2	255	
Euph. egg				
Fish eggs	1	2	28	
Fish larv				
Forams	7	2	199	
Larvacns				
Medusae				
Ostracods	4	2	113	
Polychts	1	2	28	
Pter. thc	5	2	142	
Pter. gym	1	2	28	
Rads	6	2	170	
Salps	11=11	2	312	
Siphonoph	5	2	142	
Squid				
Sagitta	3	2	85	
Euchaeta	1	2	28	
Pleuromamma	1	2	28	
Dicamptodon	2	2	57 56	

PLANKTON ANALYSIS

Cruise V-8
Station 19
Date 9 Dec. 55
Net in 1840
Net out
Position

Equipment 1 Mnet
Depth tow 250 Full
Type tow ~~Mnet~~ Oblq.
$M^3 H_2O$ filtered 2320
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3 M^3$
E. ham.	1	20	2.2
K. subt	6	10	26
K. pac.			
S. calif	4	100	1.7
S. decip	2	10	30
S. eleg.			
S. enfl.	26	10	110
S. hex.	8	10	34
S. lyra	2	10	8.6
S. min.			
S. serrat adult	4	10	17
S. serrat juv	1	10	4.4
S. ten.			
S. ten.			
P. draco	10	10	43
B. chuti	2	100	0.86
Total chaets			278
# spp.	10		

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	10	5	86	
Atlantids	1	5	9 8	
Cladocera				
Copepods	60	1	2586	
Chaetogn.	10	1	431	
Dec. larv	10	5	86	
Doliolids				
Euphaus.	20	1	861	
Euph. egg				
Fish eggs				
Fish larv	4	5	34	
Forams	3	5	~~26~~ 25	
Larvachs				
Medusae	4	5	34	
Ostracods	10	5	86	
Polychts	2	5	17	
Pter. thc	7	5	60	
Pter. gym	1	5	9 8	
Rads	7	5	60	
Salps	6	5	52 51	
Siphonoph	5	1	216	
Squid				
Furcilia	2	5	17	
Tomopt	5	1	216	

Decapod larvae are mostly deep-sea forms?

3 large red shrimp 10 s%

PLANKTON ANALYSIS

Cruise V-8
Station 20
Date 10 Dec. 55
Net in 1555
Net out 1652
Position

Equipment 1 Mnet
Depth tow
Type tow vb.
M^3H_2O filtered 2320 l
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt	2	20	4.3
K. pac.	1	20	2.2
S. calif			
S. decip	8	5	69
S. eleg.			
S. enfl.	22	5	189
S. hex.	3	5	25 26
S. lyra	1	5	9 9
S. min.			
S. serrat	3	5	25 26
S. serrat	3	5	25 26
S. ten.			
S. ten.			
P. draco	3	5	25 26
S. hispida	11=11	100	47
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	2	129	
Atlantids	1	5	8 9	
Cladocera				
Copepods	34	2	732	
Chaetogn.	35	2	752	
Dec. larv	4	5	34	
Doliolids				
Euphaus.	27	2	570 581	
Euph. egg				
Fish eggs	1	5	9 8	
Fish larv	1	5	9 8	
Forams	2	5	17	
Larvacns				
Medusae	4	2	86	
Ostracods	6	2	129	
Polychts				
Pter. thc	6	2	129	
Pter. gym				
Rads	14	2	302	
Salps	1	2	21	
Siphonoph	10	2	215	
Squid				
Megalopa	1	20	2	
Zoeae	3	2	64	
Short fan	1	5	9 8	
Tanaid	2	2	43	

2 deep Hay 100 %
flatfish larvae 1-100
Cyphonaut 1-100

PLANKTON ANALYSIS

Cruise V-8
Station 21
Date 13 Dec 55
Net in 2030
Net out
Position

Equipment 1 Meter
Depth tow
Type tow obl.
$M^3 H_2O$ filtered 4200
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip	5	10	11 12
S. eleg.			
S. enfl.	27	10	64 ✓
S. hex.	3	10	7.1 ✓
S. lyra			
S. min.			
S. serrat all	14	10	33 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	7	10	16 ✓
Sagitta ? 1	1	20	1.2 ✓
Thaspedal	1	20	1.2 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	7	5	33 ✓	
Atlantids 1	1	5	5 4	
Cladocera				
Copepods	50	1	1190 ✓	
Chaetogn. 11=11		1	261 ✓	
Dec. larv	4	5	19 ✓	
Doliolids	1	10	2 ✓	
Euphaus. 11=11		1	261 ✓	
Euph. egg				
Fish eggs 1	1	5	5 4	
Fish larv 1	1	5	5 4	
Forams	1	10	2 ✓	
Larvacns				
Medusae	1	10	2 ✓	
Ostracods	4	5	19 ✓	
1 Tom Polychts 111	4	5	19 ✓	
Pter. thc	10	5	48 47	
Pter. gym 11	2	5	9	
Rads	1	5	5 4	
Salps	4	5	19	
Siphonophore	10	1	239	
Squid				
Euphausid 1	1	50	5 4	
Euphausid 1+1+1+4	10	5	47	
Euphausid 11	2	5	9	
Euphausid 1+4	5	5	23 ✓	
Euphausid 1	1	5	5 4	
Megalopa 1	1	5	5 4	
Clupeid larv 1	1	5	5 4	
Flatfish larvae	1	20	11	

Note wing attached with fringe on wings!!

PLANKTON ANALYSIS

Cruise V-8
Station 22
Date 14 Dec. 55
Net in 0840
Net out
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 1400
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	2	20	7.1
K. pac. //	2	20	7.1
S. calif			
S. decip	10	20	35
S. eleg.			
S. enfl.	26	5	372
S. hex.	4	20	14
S. lyra	5	20	17.8
S. min.			
S. serrat adult	3	20	10
S. serrat immat //	2	20	7.1
S. ten.			
S. ten.			
P. draco	9	20	32
Sagitta //	2	20	7.1
Total chaets			
# spp.			

K. subt. japonica

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms com.	1			
Dinoflag				
Noctiluca				
Amphipods	1	20	3.5	
Atlantids //	2	5	28	
Cladocera				
Copepods	24	2	856	
Chaetogn.	16	2	66	571
Dec. larv	3	20	10	
Doliolids				
Euphaus.	9	20	32	
Euph. egg				
Fish eggs	1	20	3.5	
Fish larv //	3	20	10	
Forams				
Larvacns				
Medusae	8	20	28	
Ostracods	2	20	7	
Tom Polychts //	2	20	7	
Pter. thc	6	20	21	
Pter. gym	1	50	1	
Rads	2	20	7	
Salps	9	20	32	
" Siphonoph	12	2	429	
Squid	2	100	1	
Larvae //	2	20	7	
Ostrachan	1	20	3.5	
Hyperid	4	20	14	
Flat fish	1	100	.7	
Tentacles	1	100	.7	

Xiphias Eggs? 1-50 1

PLANKTON ANALYSIS

Cruise V-8
Station 23
Date 16 Dec. 55
Net in 2407
Net out 2448
Position

Equipment 1M net
Depth tow
Type tow Obl.
$M^3 H_2O$ filtered 1640 ✓
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3 M^3$
E. ham.			
K. subt (11)	4	10	24 ✓
K. pac.			
S. calif			
S. decip	12	10	73 ✓
S. eleg.			
S. enfl.	20	10	122 ✓
S. hex.	3	10	18 ✓
S. lyra	4	10	24 ✓
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	6	10	36 ✓
Sagitta	6	100	3 ✓
Total chaets			
# spp.			

K subt japonica

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	5	73 ✓	
Atlantids				
Cladocera				
Copepods	42	2	1280 ✓	
Chaetogn.	13	2	396 ✓	
Dec. larv	3	5	36 ✓	
Doliolids				
Euphaus.	17	2	519 ✓	
Euph. eggs				
Fish eggs				
Fish larv (11)	3	5	36 ✓	
Forams (11)	3	10	18 ✓	
Larvacns				
Medusae (11)	2	5	24 ✓	
Ostracods	7	5	85 ✓	
Polychts (11)	2	5	24 ✓	
Pter. thc	7	5	85 ✓	
Pter. gym				
Rads	3	5	36 ✓	
Salps	7	5	85 ✓	
Siphonophores	10	2	305 ✓	
Squid (1)	1	10	6 ✓	
Tunicate shell (11)	2	20	6 ✓	
Lamellibr shell (11)	2	100	1 ✓	
Myad (1)	1	5	12 ✓	
Euphausiid (11)	6	5	73 ✓	
Larvacet	8	2	244 ✓	

Wind ostrad 5 night.

PLANKTON ANALYSIS

Cruise V-8
Station 24
Date 17 Dec. 55
Net in 1210
Net out
Position

Equipment 1M net
Depth tow
Type tow obl.
M^3H_2O filtered 4320
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt	3	20	3.4
K. pac.	1	20	1.1
S. calif	1	100	.2
S. decip	12	10	27
S. eleg.			
S. enfl.	36	10	83
S. hex.	9	10	20
S. lyra	5	10	11
S. min.			
S. serrat			
S. serratodentat	1	20	1.1
S. ten.			
S. ten.			
P. draco	7	10	16
Sagitta hispida	3	100	.69
1 chaetognath eggs	1	20	1.1
Total chaets			
# spp.			

Kelt zap.
Dead S antappendix etc,

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	5	9	
Atlantids				
Cladocera				
Copepods	36	2	417	
Chaetogn.	27	2	312	
Dec. larv	1	5	4.6	
Doliolids				
Euphaus.	6	2	69	
Euph. egg				
Fish eggs				
Fish larv	4	5	18	
Forams	2	5	9	
Larvacns				
Medusae				
Ostracods	6	5	27	
2 Tom Polychts	3	5	13	
Pter. thc	4	5	18	
Pter. gym	1	5	4.6	
Rads	8	2	92	
Salps	5	5	23	
Siphonoph	10	2	115	
Squid				
~~Lepas Cirr.~~	1	5	4.6	
~~Lucifer~~	1	5	4.6	
~~Ophiopluteus~~	7	2	81	
~~Ctenophore~~	2	5	9	
~~Hydroid~~	6	2	69	
Siphonophore				
Colonial rock 1 = 3-2			34	
Auricularia 1-5			4.6	
Cephalothorax 1-5			4.6	
Stomatopod 1-5			4.6	
Siphonophore 1-50			.4	
Phyllosoma 1-100			.2	
Ostracod & radiolarian				

PLANKTON ANALYSIS

Cruise V-8
Station 25
Date 18 Dec. 55
Net in 1930
Net out
Position

Equipment 1 M net
Depth tow
Type tow obl.
$M^3 H_2O$ filtered 2120 v
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt 1/+2	4	20	9.4
K. pac.			
S. calif			
S. decip	14	20	33
S. eleg.			
S. enfl.	22	5	205
S. hex.	6	20	14
S. lyra	2	20	4.7
S. min.			
S. serrat adult	1	50	.90
S. serrat immat 1	1	20	2.5
S. ten.			
S. ten.			
P. draco	7	20	16
Sagitta 7	2	50	1.8
Total chaets			
# spp.			

See rial for S. bayi? with mature male.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	28	2	66	
Atlantids 1		5	9	
Cladocera				
Copepods	100	2	2358	
Chaetogn.	33	2	777	
Dec. larv	4	2	94	
Doliolids				
Euphaus.	14	2	330	
Euph. egg				
Fish eggs				
Fish larv IIII	5	5	47	
Forams 1	1	5	9	
Larvacns				
Medusae III	3	2	70	
Ostracods	2	2	47	
Polychts II	2	2	47	
Pter. thc	4	2	94	
Pter. gym				
Rads	4	2	94	
Salps IIII	5	5	47	
Siphonophores IIIII	10	2	236	
Squid 1	1	5	9	
Pastinak II	2	5	18	
Ophiuroids IIII	4	5	38	
Hoyard 3	3	2	70	
Lanter II	2	5	18	
Stomatopod 1	1	100	.4	
Physoma 7	–	100	3	
Flat fish larva 2	–	100	.9	

See chart rial for resp. test & local euphausiids inside!!

PLANKTON ANALYSIS

Cruise Vema 8
Station 26
Date 20 Dec. 55
Net in 0900
Net out
Position

Equipment 1M net
Depth tow
Type tow
$M^3 H_2O$ filtered 2280
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3 M^3$
E. ham.	2	10	3.8
K. subt 11+4	6	10	26
K. pac.			
S. calif	2	10	3.8
S. decip	13	10	57
S. eleg.			
S. enfl.	40	5	351
S. hex.	3	5	26
S. lyra	4	10	17
S. min.			
S. serrat			
S. serrat	4	10	17
S. ten.			
S. ten.			
P. draco	17	10	74
S. lanceolata	5	20	11
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	11=11	5	91	
Atlantids				
Cladocera				
Copepods	60	1	2631	
Chaetogn.	18	1	790	
Dec. larv	11=11	5	91	
Doliolids				
Euphaus.	16	5	140	
Euph. egg				
Fish eggs				
Fish larv	4	5	35	
Forams				
Larvacns				
Medusae	8	5	70	
Ostracods	2	5	18	
Polychts	1	5	8.8	
Pter. thc	8	5	70	
Pter. gym				
Rads	2	5	18	
Salps	4	5	35	
Siphonoph	3	1	132	
Squid	2	20	4	
Pteropoda	1	5	8	
Larvacs	2	1	87	
Gastropoda	2	5	18	
Lucifer	4	5	35	
Physosoma	2	100	.8	
Leptocephalus	6	50	.8	
Stomatopoda	2	50	1.7	

PLANKTON ANALYSIS

Cruise V-8
Station 27
Date 20 Dec. 55
Net in 1255
Net out 1313
Position

Equipment 1M net
Depth tow
Type tow
$M^3 H_2O$ filtered 7920 ✓
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.	1	10	1.2 ✓
K. subt	1	20	.6 ✓
K. pac.	2	10	2.5 ✓
S. calif	1	100	.12 ✓
S. decip	4	10	5.0 ✓
S. eleg.			
S. enfl.	3	5	88 ✓
S. hex.	6	5	15 ✓
S. lyra	7	5	17.2 ✓
S. min.			
S. serrat	2	10	2.5 ✓
S. serrat	1	10	1.2 ✓
S. ten.			
S. ten.			
P. draco	5	10	5.6 6.3
E. fowlera	4	10	5.0 ✓
S. robusta	6	10	6.7 7.6
S. macrocephala	10	100	1.2 ✓
Total chaets			
# spp.			

See vial for P. leuromma
and any S. macrocephala

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	5	15 ✓	
Atlantids	1	5	2.5 ✓	
Cladocera				
Copepods	90	1	1139 ✓	
Chaetogn.	13	1	164 ✓	
Dec. larv	8	5	20 ✓	
Doliolids	6	5	15 ✓	
Euphaus.	24	5	60 ✓	
Euph. egg				
Fish eggs				
Fish larv	4	5	10 ✓	
Forams				
Larvacns				
Medusae	4	5	10 ✓	
Ostracods	23	5	58 ✓	
Polychts	3	5	7.6 ✓	
Pter. thc	11 = 11	5	69 ✓	
Pter. gym	1	5	2.5 ✓	
Rads	6	5	15 ✓	
Salps	1	10	1 ✓	
Siphonoph	10	1	126 ✓	
Squid				
Cydippids	8	5	20 ✓	
Tomopteris	2	5	5 ✓	
Tarpodt 3	3	1	37 ✓	
Phoronal	1	10	1 ✓	
Pteropod	1	100	.1 ✓	
Tunicates	2	100	.2 ✓	
Isopoda	2	100	.2 ✓	
Lucifer	1	100	.1 ✓	

See chaet vial for respiratory
Pteropod - Dec. tiny.

Ph. deep carnivore 3 - 100 .4
Myctophids 1 - 100 .1
A. Ella 1 - 100 .1
Bipalpia → Ant 1 - 100 .1

PLANKTON ANALYSIS

Cruise V-8
Station 28
Date 21 Dec. 55
Net in 1250
Net out
Position

Equipment 1 Net
Depth tow
Type tow
$M^3 H_2O$ filtered 1800
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt juv	42	100	1.1
K. pac.	1	100	.55
S. calif	1	100	.55
S. decip	4	20	11
S. eleg.			
S. enfl.	24	20	66.67
S. hex.	3	20	8.3
S. lyra	1	20	2.7
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	4	20	11
Sagitta?	1	100	.55
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	10	11	
Atlantids				
Cladocera				
Copepods	60	10	334	
Chaetogn.	30	10	166	
Dec. larv				
Doliolids	1	10	5	
Euphaus.	7	10	38	39
Euph. egg				
Fish eggs	1	10	5	
Fish larv	2	10	11	
Forams				
Larvacns				
Medusae	4	10	22	
Ostracods	5	10	27	
Polychts	1	10	5	
Pter. thc	3	10	16.6	
Pter. gym				
Rads	7	10	38	39
Salps	1	10	5	
Siphonoph	5	2	139	
Squid	1	50	1	
Sagitta	1	20	3	2
Jaunt	2	10	11	
Barnacle	4	100	2	
Diamilina	1	100	.5	

PLANKTON ANALYSIS

Cruise V-8
Station 29
Date 22 Dec 55
Net in 0635
Net out 1315
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 16000
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham. II	2	20	.62
K. subt II	2	20	.62
K. pac.			
S. calif	2	20	.62
S. decip	7	20	2.1
S. eleg.			
S. enfl.	19	20	5.9
S. hex.	8	20	2.5
S. lyra	4	20	1.2
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	9	20	2.8
S. macrocephala IIII	10	20	3.1
E. lobata II	2	20	.62
S. robusta I	1	20	.31
Total chaets			
# spp.			

See vial for fecal pellet? or egg? containing large S. macrocephala.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	6	5	7	
Atlantids II	2	5	2	
Cladocera				
Copepods	48	2	150	
Chaetogn.	16	5	20	
Dec. larv	3	5	3.7	
Doliolids	1	20	.3	
Euphaus.	8	5	10	
Euph. egg	1	20	.3	
Fish eggs I	1	5	1	
Fish larv II	3	5	3.7	
Forams IIII	4	5	5	
Larvacns				
Medusae 3	3	20	.9	
Ostracods	15	5	18	
Polychts I	1	5	1	
Pter. thc	8	5	10	
Pter. gym				
Rads	11=11	5	34	
Salps	2	5	2	
Siphonoph				
Squid				
Ophiophilus I	1	20	.3	
Lucifer II	2	20	.6	
Sergestidae I	1	20	.3	
Hymenodora	2	5	2	
Cyclothone II	2	20	.6	

Bathypelagic nematocerans 1 – 100 .06
Vampyroteuthis 1 – 100 .06
See vial in jar for n. sp. of Oncaea?
Arachnactis larvae 2 – 20 .6
various algae
Euphausid ostrich 1 – 20 .3
Sergestids 3 – 20 .9
deep mysids – 2 – 100 .12

PLANKTON ANALYSIS

Cruise V-8
Station 30
Date 23 Dec. 55
Net in 1430
Net out 1523
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 2120
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt II	2	20	4.7
K. pac.	1	20	2.3
S. calif	2	100	1.94
S. decip	9	10	42
S. eleg.			
S. enfl.	30	10	141
S. hex.	6	10	28
S. lyra	5	10	23
S. min.			
S. serrat adult	3	100	1.4
S. serrat			
S. ten.			
S. ten.			
P. draco	4	10	18.8
S. enlenta	2	100	.94
Total chaets			
# spp.			

1 S. macrocephala head - probably left from last net tow. 100%

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	~~20~~ 5	28	
Atlantids				
Cladocera				
Copepods	120	5	1132	
Chaetogn.	45	~~20~~ 5	425	
Dec. larv	9	~~20~~ 5	84 8.5	
Doliolids	1	5	9	
Euphaus.	16	~~20~~ 5	151	
Euph. egg				
Fish eggs	1	5	9	
Fish larv	2	5	18.8	
Forams III	3	~~20~~ 5	28	
Larvacns II	2	5	18.8	
Medusae IIII	7	5 ~~20~~	66	
Ostracods	10	~~20~~ 5	94	
Polychts	1	10	4.7	
Pter. thc	5	~~20~~ 5	47	
Pter. gym				
Rads	15	5 ~~20~~	141	
Salps	1	5 ~~20~~	9	
Siphonoph				
Squid				
Sigmodontes II	2	5	18.8	
Pleuroncodes 1	1	5	9	
Euphausia II	2	5	18.8	
Cyclothone II	2	50	1	2
Vinciguerria 6	6	5 ~~20~~	57	

Fringed ostracod present

Coccinodiscus 1 - 10 4.7
Red sea algae 3 - 10 14

PLANKTON ANALYSIS

Cruise V-8
Station 31
Date 23 Dec. 55
Net in 2316
Net out 2338
Position

Equipment 1 Mnet
Depth tow
Type tow
$M^3 H_2O$ filtered
Displacement vol. 1680 ✓

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	20	2.9
K. pac.			
S. calif	1	100	.59
S. decip	4	20	11.9
S. eleg.			
S. enfl.	19	20	56
S. hex.	18	20	53
S. lyra	12	20	35
S. min.			
S. serratodentat	1	20	2.9
S. serrat			
S. ten.			
S. ten.			
P. draco	6	20	17.8
Sagitta	2	100	1.1
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	5	59	
Atlantids				
Cladocera				
Copepods	50	2	1488	
Chaetogn.	30	5	356	
Dec. larv	2	5	23	
Doliolids	1	5	11.9	
Euphaus.	25	5	298	
Euph. egg				
Fish eggs				
Fish larv	4	5	47	
Forams				
Larvacns				
Medusae	3	5	35	
Ostracods	2	5	23	
Polychts	1	5	11.9	
Pter. thc	5	5	59	
Pter. gym	1	5	11.9	
Rads	5	5	59	
Salps	3	5	35	
Siphonoph				
Squid				
Harpact	4	2	119	
Pleuromamma	1	5	11.9	
Clausocalanus	2	5	23	

Comparatively large #'s of S. lec. + S. lyra give the zooplankton appearance of Current zooplankton!!

PLANKTON ANALYSIS

Cruise V-8
Station 32
Date 24 Dec. 55
Net in 1219
Net out 1345
Position

Equipment 1 Mnet
Depth tow
Type tow
$M^3 H_2O$ filtered 3440
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	20	1.4
K. pac.			
S. calif	3	100	.87
S. decip	4	20	5.8
S. eleg.			
S. enfl.	32	10	93
S. hex.	17	10	49
S. lyra	4	10	11
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	5	20	7.2
Sagitta	3	100	.87
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	2	10	5.8	
Atlantids	1	10	2	
Cladocera				
Copepods	50	5	291	
Chaetogn.	47	5	273	
Dec. larv	9	5	52	
Doliolids	2	5	11	
Euphausi	8	5	46	
Euph. egg	1	5	5.8	
Fish eggs				
Fish larv				
Forams	1	5	5.8	
Larvacns	2	5	11	
Medusae	3	5	17	
Ostracods	3	5	17	
Polychts				
Pter. thc	13	5	75	
Pter. gym				
Rads	1	5	5.8	
Salps	1	5	5.8	
Siphonoph	—			
Squid				
Sigmund dar	2	10	5.8	
Lucifer	2	10	5.8	
Lepas naup	1	10	2	
Pterotrachea	1	10	2	
Sagitta	1	10	2	
Porpoct	9	5	52	

PLANKTON ANALYSIS

Cruise V-8
Station 33
Date 24 Dec. 55
Net in 2323
Net out 2338
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 1400
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt IIII	4	20	14
K. pac.			
S. calif			
S. decip	3	10	21
S. eleg.			
S. enfl.	16	10	114
S. hex.	11=11	10	78
S. lyra	5	10	35
S. min.			
S. serrat adt	1	20	3.5
S. serrat			
S. ten.			
S. ten.			
P. draco	5	10	35
S. robusta	1	100	.71
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	5	43 42	
Atlantids I	1	10	7	
Cladocera				
Copepods	77	5	1100	
Chaetogn.	20	5	286	
Dec. lar IIII	3	10	21	
Doliolid II	2	10	14	
Euphausi	19	5	271	
Euph. egg				
Fish eggs I	1	10	7	
Fish lar IIII	5	5	71	
Forams I	1	10	7	
Larvacns				
Medusae II	2	10	14	
Ostracods	8	5	114	
Polychts II	2	10	14	
Pter. thc	8	5	114	
Pter. gym				
Rads	3	5	43 42	
Salps	3	5	43 42	
Siphonoph				
Squid				
Sphaerophelteus I	1	20	3	
Isarthropoda I	1	10	7	
Arenaria Planula I	1	10	7	
Harpact	4	5	57	
Fused ostrac I	1	10	7	
Lucifer II.	2	10	14	
Phyllosoma I	1	20	3.5	
Leptocephalus	4	100	3 2	

PLANKTON ANALYSIS

Cruise V-8
Station 34
Date 25 Dec. 55
Net in 1200
Net out 1437
Position

Equipment 1 M net
Depth tow
Type tow
M^3H_2O filtered 6280
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt ///	3	10	4.7
K. pac.			
S. calif /	1	10	1.6
S. decip	33	10	17
S. eleg.			
S. enfl.	11=11	10	17
S. hex.	14	10	25 22
S. lyra	11=11	10	17
S. min.			
S. serrat // /	1	10	1.6
S. serrat			
S. ten.			
S. ten.			
P. draco	8	10	12 13
Sagitta //	2	20	1.6
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	8	2	64	
Atlantids /				
Cladocera				
Copepods	100	2	798	
Chaetogn.	20	2	159	
Dec. larv	1	5	3	
Doliolids				
Euphausids	26	2	207	
Euph. eggs /	1	5	3	
Fish eggs				
Fish larv /	1	5	3	
Forams ///	3	2	24 23	
Larvacns				
Medusae ///	3	5	9.5	
Ostracods	3	2	24 23	
Polychts /				
Pter. thc	12	2	95	
Pter. gym				
Rads	7	5	22	
Salps /	1	5	3	
Siphonoph				
Squid /	1	5	3	
Cyclothone ///	3	2	24 23	
Myctid /	1	5	3	
Paralepid /	1	5	3	
Harpact	3	10	5 4	
Sergestid larv /	1	5	3	

Chopped Hay over
Fuzzy stained over
Lost Euphausids 1 — 100 17

Note large #'s S. lyra & S. hex.

PLANKTON ANALYSIS

Cruise V-8
Station 35
Date 26 Dec. 55
Net in 0955
Net out 1110
Position

Equipment 1 net
Depth tow
Type tow
$M^3 H_2O$ filtered 3000
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3M^3$
E. ham.			
K. subt	1	50	.66
K. pac.	1	50	.66
S. calif	1	20	1.6
S. decip	4	10	13
S. eleg.			
S. enfl.	32	10	106
S. hex.	13	10	43
S. lyra	3	10	10
S. min.			
S. serrat adult	3	10	10
S. serrat juv	3	10	10
S. ten.			
S. ten.			
P. draco	12	10	40
S. robusta	7	100	23
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	3	4	25	
Atlantids				
Cladocera				
Copepods	112	4	932	
Chaetogn.	28	4	233	
Dec. larv	2	4	16 17	
Doliolids				
Euphaus.	13	4	98 108	
Euph. egg				
Fish eggs				
Fish larv	3	4	25	
Forams	2	4	16 17	
Larvacns				
Medusae				
Ostracods	10	4	83	
Polychts	2	5	13	
Pter. thc	2	4	16 17	
Pter. gym				
Rads	4	4	33	
Salps				
Siphonoph				
Squid				
Cyclothone	3	5	20	
Benedi 1	1	5	7 6	
Lucifer 1	1	5	7 6	
Chiroteuthis 1	1	20	1	
Bathypod 1	1	5	7 6	
Varipost	2	4	17 16	
Sternoptyx	1	100	.3	
Flat fish larv	1	100	.3	

PLANKTON ANALYSIS

Cruise V-8
Station 36
Date 27 Dec. 65
Net in ~~0245~~ 0145
Net out 0340
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 4600
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.	1	100	.21
K. subt	2	20	2.1
K. pac.			
S. calif			
S. decip	5	20	5.4
S. eleg.			
S. enfl.	18	20	19
S. hex.	9	20	9.7
S. lyra	5	20	5.4
S. min.			
S. serrat var 1	1	20	1.0
S. serrat			
S. ten.			
S. ten.			
P. draco	4	20	4.3
Sagittopsis III	4	50	1.7
E. fowleri III	5	100	1.0
Disdiscita	4	100	.87
Total chaets			
# spp.			

See vial for S. deep & poorly developed dentition.
See vial for S. manuscripta young mature!!

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	5	21	
Atlantids				
Cladocera				
Copepods	50	2	543	
Chaetogn.	10	2	108	
Dec. larv	2	5	8	
Doliolids				
Euphausi.	19	5	82	
Euph. egg				
Fish eggs				
Fish larv	1	5	4	
Forams				
Larvacns				
Medusae	1	5	4	
Ostracods	6	5	26	
Polychts	1	5	4	
Pter. thc	4	5	17	
Pter. gym				
Rads	1	5	4	
Salps				
Siphonoph				
Squid				
Euchaetae 1	1	5	4	
Boreomysis II	2	5	8	
Euphausia III	3	5	13	
Hairpoint	1	2	10	
Sagittoidea 1	1	5	4	
B.P. Nemerteans	2	100	.4	
Platyhelm larv 1		5	4.	
Auricularia larv 1		5	4.	
B.P. isopod	1	5	4.	

PLANKTON ANALYSIS

Cruise V-8
Station 37
Date 31 Dec. 55
Net in 0410
Net out 0442
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 1380 ✓
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
△K. subt ||||1	6	10	46 47
K. pac.			
S. calif	1	20	3.9 ✓
* S. decip	14	10	109 ✓
S. eleg.			
S. enfl.	14	10	109 ✓
S. hex.	5	10	39 ✓
S. lyra	3	10	23 ✓
S. min.			
S. serrat immat	1	10	7.8 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	3	10	23 ✓
Total chaets			
# spp.			

* 1 macro + micro larv present - see vial. At all preceding stations of V-8 only macro present!!

△K subt Jap. present

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	7	5	109 ✓	
Atlantids ||=2	10	15 ✓	
Cladocera				
Copepods	37	2	1445 ✓	
Chaetogn.	12	2	~~479~~ 469	
Dec. larv	5	5	78 ✓	
Doliolids	1	10	7.8 ✓	
Euphausi.	14	2	547 ✓	
Euph. eggs	43	10	2513	
Fish eggs				
Fish larv	5	10	39 ✓	
Forams	1	5	15 ✓	
Larvacns				
Medusae |||	3	5	46 47	
Ostracods	4	5	62 ✓	
Polychts ||	2	10	15 ✓	
Pter. thc || = 11	5	430 172	
Pter. gym ||	10	86 ✓	
Rads	13	5	203 ✓	
Salps	5	5	78 ✓	
Siphonoph				
Squid				
Cleodora	1	10	7.8 ✓	
Creamyia ||	2	10	15 ✓	
Tarpoct.	2	5	31 30	
Gastropods ||	2	10	15 ✓	
Stomatopod larv	1	10	7.8 ✓	
Phyllosoma	1	10	7.8	
Megalopa ||	2	10	15	
Leptocephalus	1	100	.7	

PLANKTON ANALYSIS

Cruise V-8
Station 38
Date
Net in 1454
Net out 1537
Position

Equipment 1 Mwt
Depth tow
Type tow
$M^3 H_2O$ filtered 1720 ✓
Displacement vol.

CHAETOGNATHA

Species	#C	%S	$\#/10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphausi				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

Not done because sample was spilled on board ship.

PLANKTON ANALYSIS

Cruise V-8
Station 39
Date 2 Jan 55
Net in 0100
Net out 0139
Position

Equipment 1M net
Depth tow
Type tow
$M^3 H_2O$ filtered
Displacement vol. 1560

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt IIII	4	20	12 13
K. pac.			
S. calif I	2	50	2.5
S. decip	7	10	44 45
S. eleg.			
S. enfl.	40	10	256
S. hex.	2		12 13
S. lyra	1		6.4
S. min.			
S. serrat juv 2	2	10	12 13
S. serrat adl 2	2	10	12 13
S. ten.			
S. ten.			
P. draco	9	10	59 58
S. serrat ?	1	20	3.2
Phaer eggs 1 dup		100	
Sagitta	2	100	1.28
Total chaets			
# spp.			

see note for S. serr. 2! broke like S. serr. from shallow area (warm water!)

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods II=11	2	2	352	
Atlantids II	2	5	25 26	
Cladocera				
Copepods	95	2	3045	
Chaetogn.	13	2	416	
Dec. larv II	2	5	25 26	
Doliolids				
Euphausiids	16	2	512	
Euph. eggs				
Fish eggs				
Fish larv II	4	2	128	
Forams II	2	5	25 26	
Larvachs				
Medusae				
Ostracods	3	2	96	
Polychts				
Pter. thc	3	2	96	
Pter. gym				
Rads	5	2	160	
Salps	2	2	64	
Siphonoph				
Squid				
Lucifer I	1	5	13 12	
Lysmata II	2	5	26 25	
Natant II	2	5	26 25	
Leptocephalus	.1	100	.6	
Chaetodon	1	100	.6	
phyllosoma	2	100	1.2	
Panulirus-lobst	1	100	.6	
Mediterr sea lobst	.1	100	.6	

PLANKTON ANALYSIS

Cruise V-8
Station 40
Date 3 Jan. 56
Net in 1922
Net out 2012
Position

Equipment 1 M net
Depth tow
Type tow
$M^3 H_2O$ filtered 2000 ✓
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif	2	10	10 ✓
S. decip	3	10	15 ✓
S. eleg.			
S. enfl.	57	5	559 570
S. hex.	8	5	20 80
S. lyra	3	5	30 ✓
S. min.			
S. serrat	2	10	10 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco	4	10	20 ✓
Indetermd.	2	100	1.0 ✓
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	2	125 ✓	
Atlantids				
Cladocera				
Copepods	125	2	3125 ✓	
Chaetogn.	33	2	825 ✓	
Dec. larv	4	2	100 ✓	
Doliolids				
Euphaus.	30	2	750 ✓	
Euph. egg				
Fish eggs				
Fish larv	5	2	125 ✓	
Forams	2	5	20 ✓	
Larvacns				
Medusae	4	5	40 ✓	
Ostracods	6	5	60 ✓	
Polychts	3	5	30 ✓	
Pter. thc	11	2	275 ✓	
Pter. gym				
Rads	2	5	20 ✓	
Salps	1	5	10 ✓	
Siphonoph				
Squid	1	10	5 ✓	
Lucifer	1	5	10 ✓	
Sergestes	1	10	5 ✓	
Sigmudicer	1	5	10 ✓	
Pel Phyll	3	5	30 ✓	
Physsoma	1	10	5 ✓	
Megalopa	1	10	5 ✓	
Harpact	5	2	125 ✓	
Leptocephalus	1	100	.5	
Flat fish larvae	4	100	2.	

Larv

PLANKTON ANALYSIS

Cruise V-8
Station 41
Date 5 Jan 56
Net in 0936
Net out 1214
Position

Equipment 1M net
Depth tow
Type tow
M^3H_2O filtered 6320 ✓
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt /III	5	20	3.9 ✓
K. pac.			
S. calif	2		1.6 1.6
S. decip	15		11 12
S. eleg.			
S. enfl.	31	20	48 24
S. hex.	4		3.1 ✓
S. lyra	20		15 16
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	6	20	4.7 ✓
Total chaets			
# spp.			

U ultrajs present
S rol Or 2 bunk? of S. decipiens.

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms Coscinodl		5	3 ✓	
Dinoflag				
Noctiluca				
Amphipods	3	5	9 ✓	
Atlantids				
Cladocera				
Copepods	60	5	189 ✓	
Chaetogn.	28	5	88 ✓	
Dec. larv	4	5	12 13	
Doliolids	1	5	3 ✓	
Euphausi.	12	5	38 ✓	
Euph. egg				
Fish eggs	1	5	3 ✓	
Fish larv /II	4	5	12 12	
Forams /II	3	5	9 ✓	
Larvacns				
Medusae				
Ostracods	10	5	31 ✓	
Polychts /.	1	5	3 ✓	
Pter. thc	14	5	44 ✓	
Pter. gym				
Rads	15	5	47 ✓	
Salps	2	5	6 ✓	
Siphonoph				
Squid /.	1	50	3 ✓	
Startopsis /II	2	5	6 ✓	
Sagitta	2	5	6 ✓	
Mesolyra	1	100	.16 ✓	
Cyclothone	1	100	.16 ✓	
Minnow?	11	100	1.9	
Trigger fish	1	100	.16	

PLANKTON ANALYSIS

Cruise V-8
Station 42
Date 7 Jan. 56
Net in 1849
Net out 2018
Position

Equipment 1 Net
Depth tow
Type tow
$M^3 H_2O$ filtered 3560 ✓
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	20	1.4 ✓
K. pac.			
S. calif	4		5.6 ✓
S. decip	5		7.0 ✓
S. eleg.			
S. enfl.	17		23 27
S. hex.	13		18 ✓
S. lyra	10		14 ✓
S. min.			
S. serrat mat	1		1.4 ✓
S. serrat atl	1		1.4 ✓
S. ten.			
S. ten.			
P. draco	1	20	1.4 ✓
Total chaets			
# spp.			

See reel for S. size.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	28	5	153 ✓	
Atlantids	2	5	11 ✓	
Cladocera				
Copepods	80		450 ✓	
Chaetogn.	25		140 ✓	
Dec. larv	8		45 ✓	
Doliolids	2		11 ✓	
Euphaus.	21		118 ✓	
Euph. egg				
Fish eggs				
Fish larvae	10	5	56 ✓	
Forams	1	5	5	
Larvachs				
Medusae	1	5	5	
Ostracods	10	5	56 ✓	
Polychts	1	5	5	
Pter. thc	12	5	168 67	
Pter. gym				
Rads	14	5	78 ✓	
Salps	4	5	22 ✓	
Siphonoph				
Squid	1	50	.5 ✓	
Luciferids	8	5	45 ✓	
Penaeid	1		5	
Echinospira	1		5	
Pteratracheid	2		11 ✓	
Gastropod	5	5	28 ✓	

See chaet rec for veg. Atlantid

Idiacanthus 2 – 100 .6
Mysid 11 – 2 – 5 11
Hyperiid 7 – 5 39
Oat lid larv 1 – 100 .3
Periphylla 1 – 100 .3
D. S. Prawn 1 – 100 .3

PLANKTON ANALYSIS

Cruise V-8
Station 43
Date 8 Jan. 56
Net in 0440
Net out 0545
Position

Equipment 1 Meat
Depth tow
Type tow
M^3H_2O filtered 2600
Displacement vol.

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham. II	2	20	3.8
K. subt	2		3.8
K. pac.			
S. calif	1		1.9
S. decip	8		15
S. eleg.			
S. enfl.	18	20	34
S. hex.	7		13
S. lyra	16		30
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco	4	20	7.6
E. macrocephala	2	50	1.5
E. bowlei I	1	20	1.9
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	5	5	38	
Atlantids				
Cladocera				
Copepods	40	5	308	
Chaetogn.	23	5	177	
Dec. larv	3	5	23	
Doliolids				
Euphausi.	11=11	5	211 85	
Euph. egg				
Fish eggs				
Fish larv	5	5	38	
Forams				
Larvacns				
Medusae II	2	5	15	
Ostracods	9	5	69 65	
Polychts				
Pter. thc				
Pter. gym				
Rads	20	5	154	
Salps	1	5	7	
Siphonoph				
Squid				
D. pram I.	1		7	
Larvae III	3		23	
Myzid I	1		7	
Megalopa I	1		7	
Starfish	2	5	15	

Clipped Hay pres

Cyclotone 6 – 6:00

PLANKTON ANALYSIS

Cruise V-8
Station 44
Date 9 Jan. 56
Net in 2401
Net out 2444
Position

Equipment 1 M net
Depth tow
Type tow
M^3H_2O filtered 1720
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subtilis	1	20	2.9
K. pac.	1		2.9
S. calif	6		17
S. decip	6		17
S. eleg.			
S. enfl.	22		63
S. hex.	5		14
S. lyra	9		26
S. min.			
S. serrat immat	3		8.7
S. serrat			
S. ten.			
S. ten.			
P. draco	2	20	5.8
Total	2	100	1.8
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms	1	5	23	
Dinoflag				
Noctiluca				
Amphipods	2		23	
Atlantids				
Cladocera				
Copepods	107		1241	
Chaetogn.	15		174	
Dec. larv	5		58	
Doliolids				
Euphaus.	20		235	
Euph. egg				
Fish eggs				
Fish larv	7	5	81	
Forams				
Larvacns	1		11.6	
Medusae	1		11.6	
Ostracods	18		209	
Polychts	1		11.6	
Pter. thc	18		209	
Pter. gym				
Rads	5		58	
Salps				
Siphonoph				
Squid				
Luciferids	11		118	
Myctids	5		58	
Sergestids	1		11.6	
Gastropods	4		46	
Megalopa	9	5	104	

Dropped by prev

Clathrichthys 3-100 1.7
Phylosomn 4-100 2.3
Myctophids 3-100 1.7

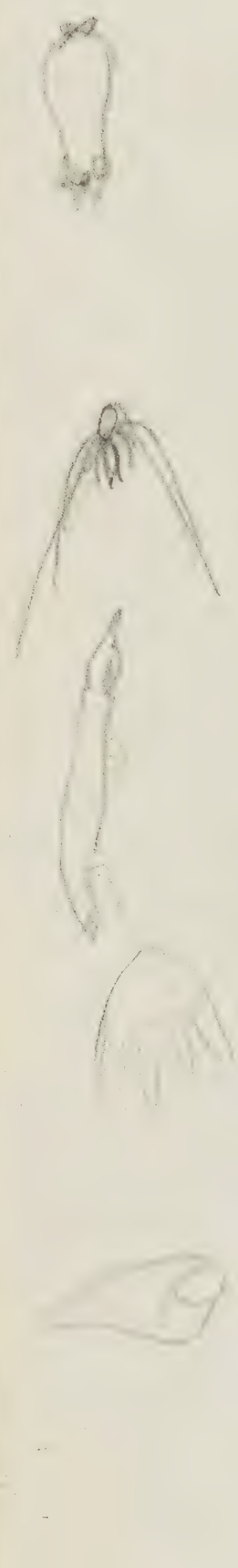
PLANKTON ANALYSIS

Cruise V8
Station PIK 1
Date 11/10/55
Net in 1958
Net out 2029
Position 20 - 1.4N, 70-39.9W

Equipment ½ M
Depth tow 185 M
Type tow
$M^3 H_2O$ filtered 335
Displacement vol. 16 ml.

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			



TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium	10	2	1490 ✓	
Diatoms	3	4	224 ✓	
Dinoflag				
Noctiluca	86	2	119200 ✓	
Amphipods	5	10	149 ✓	
Atlantids	1	10	29 ✓	
Cladocera	39	4	291 ✓	
Copepods	94	4	70200 ✓	
Chaetogn.				
Dec. larv	9	10	268 ✓	
Doliolids	3	10	89 ✓	
Euphaus.	16	5	955 ✓	
Euph. egg	24	10	716 ✓	
Fish eggs				
Fish larv	1	5	59 ✓	
Forams				
Larvacns	28	2	4170 ✓	
Medusae				
Ostracods	98	2	5970 ✓	
Polychts	5	4	373 ✓	
Pter. thc	35	4	2610 ✓	
Pter. gym				
Rads				
Salps				
Siphonoph	23	4	1715 ✓	
Squid	1	20	14 ✓	
[illegible]	45	1	13440	
Chaetognath	1	5	417 ✓	
Unidentified	1	20	14 ✓	
Brachiopod	52	4	3850 ✓	
Bundles of hay	quite prevalent			

1 Siphonod in the hay –
1 Starfish larvae –
1 Brachiopod with spines
1 Ophiopluteus –
3 Isopods – (Sim novis ?) –

Plankton Observation Procedure

Name ..... No. ..... Experiment No. .....

Instructor ..... Date .....

CUB 54

I. Calculation of volume of water filtered:

A. Standard plankton tow:

1 M net:

current meter revs × $\frac{\text{meters}}{\text{rev}}$ × 1 M^2 = _____ M^3 water filtered

½ M net:

current meter revs × $\frac{\text{meters}}{\text{rev}}$ × $\frac{1}{4}$ M^2 = _____ M^3 water filtered

B. Floating net tow:

1 M net:

current meter revs × $\frac{\text{meters}}{\text{rev}}$ × .92 M^2 = _____ M^3 water filtered

½ M net:

current meter revs × $\frac{\text{meters}}{\text{rev}}$ × .17 M^2 = _____ M^3 water filtered

C. Meter calibration data:

meter # 236, $\frac{\text{meters}}{\text{rev}}$ = 0.48

meter # 237, $\frac{\text{meters}}{\text{rev}}$ = 0.48

.015 M/sec is lowest speed for reliable meter reading – for 1 M net, standard plankton tow this = .9 M^3 per min water filtered; ½ M = M^3/min, 1 M FL. = M^3/min, ½ M FL. = M^3/min

II. Standardization of plankton volumes:

1 M net:

$\frac{\text{uncorrected displ. vol. in ml.}}{\text{cubic meters water filtered}}$ × 1000 = _____ ml./10^3 M^3

½ M net:

$\frac{\text{uncorrected displ. vol. in ml.}}{\text{cubic meters water filtered}}$ × 100 = _____ ml./10^2 M^3

Name ..... No. ..... Experiment No. .....

Instructor ..... Date .....

CUB 54

III. Determination of depth by tow:

A. Following net:
depth is 0 to .75 M for ½ and 1 M nets (dimensions ½ M - 22 cm x 75 cm. 1 M - 122 cm x 75 cm.)

B. Standard plankton tow:
meters = fathoms x 1.83

meters wire out x cosine of wire angle = depth in meters.
[cosine of wire angle = sine of (90° - wire angle)]

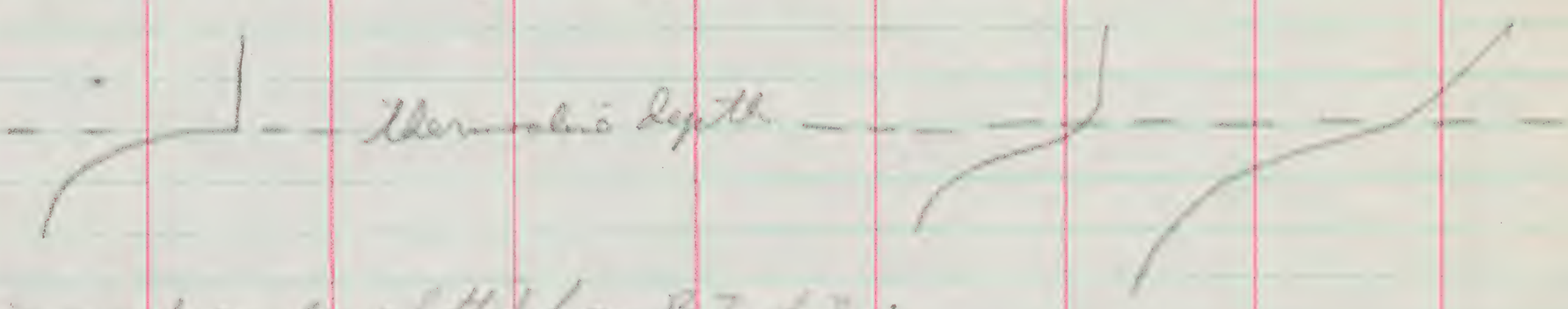
IV. Bathythermograph (BT) data:

A. Record temperatures (°F) at the following depths:

Feet	=	Meters
0		0
16		5
33		10
66		20
114		35
164		50
245		75
328		100
490		150
655		200
902 or deepest penetration		275

Convert temperatures to °C.
°C = (°F - 32) x 5/9

B. Record thermocline depth in feet and convert to meters:



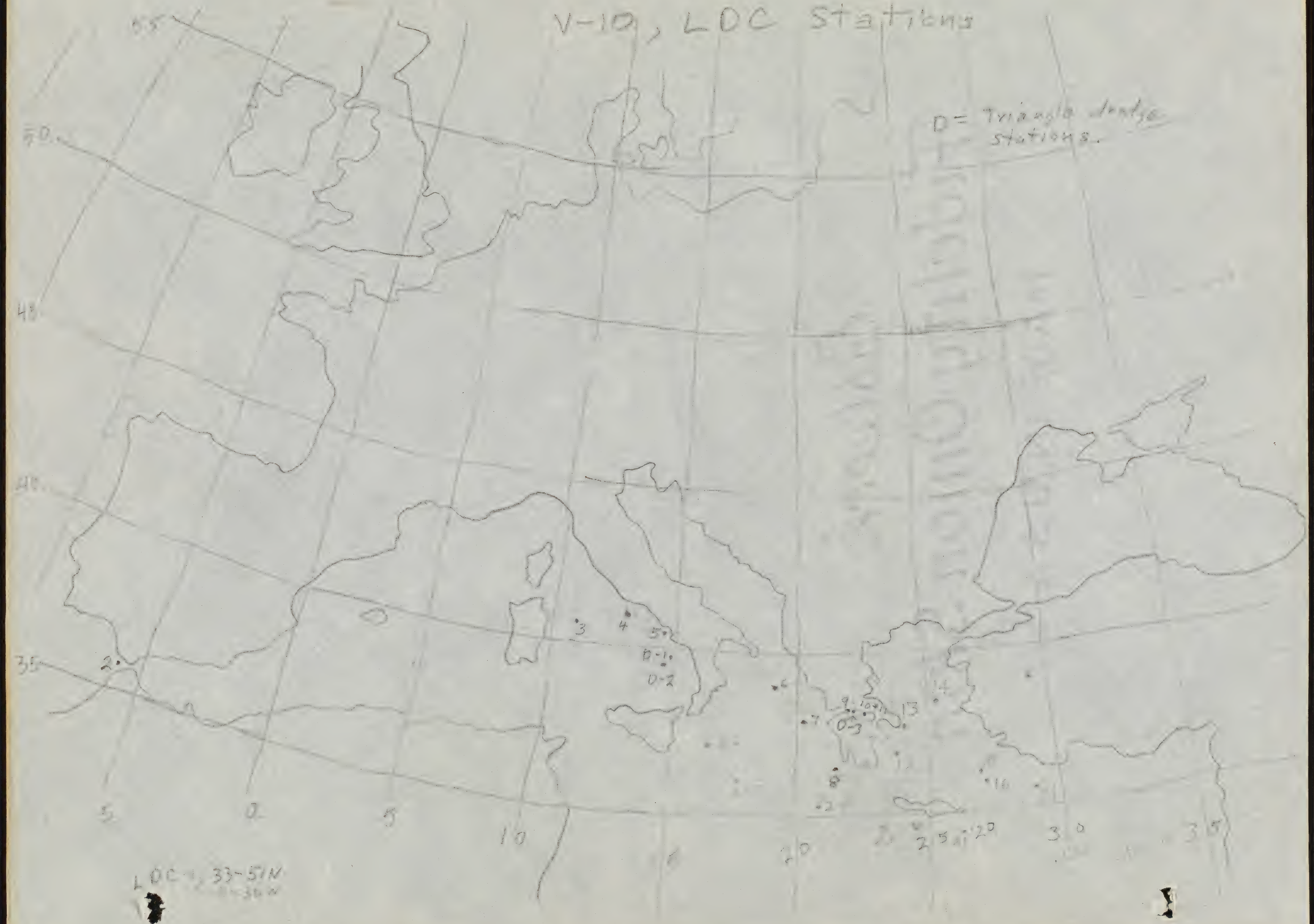
C. Following graphs are plotted from B.T. data:

1. stations

depth M	1	2	3	4
	20.8	20.5		
	18.9	19.4	etc.	
	16.4	18.3		
	15.3	17.2		

2. stations

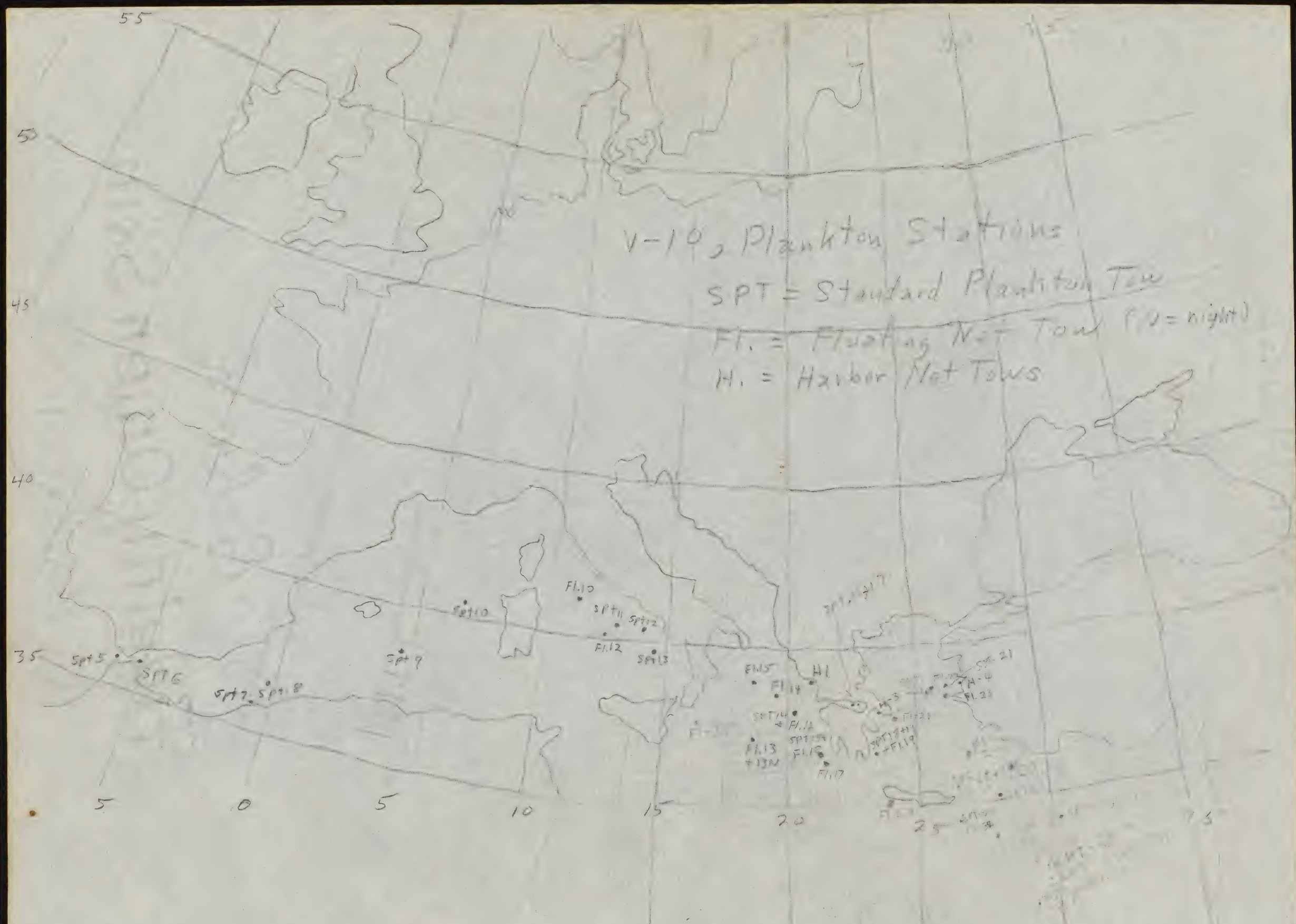
	1	2	3	4	5	6
200 M temp. °F.	16.4	16.2	18.5			etc
	15.3	16.2	17.9			


V-10, LOC Stations
D = Triangle double stations.
55
50
45
40
35
5
0
5
10
20
25
30
35
3
4
5
D-1
D-2
2
6
7
8
9
10
11
13
14
16
D3
LOC-1, 33-51N
0-36W

Name..... No..... Experiment No.....

Instructor..... Date.....

CUB 54



Vema 10, Plankton Sample Station

Name ..... No. ..... Experiment No. .....

Instructor ..... Date .....

CUB 54

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Venus 10, Current meter data
Standard Plankton Tow

Sampl. No.	Tow (SPT)	1M M³/min	½M M³/min	1M M³/min / ½M M³/min	Avg. wire ∠	1M revs/min / ½M revs/min
1	1	23	8.1	2.84	0	
2	2	35.3	10.0	3.53	40	70.5 / 82.0 = .860
3	3	44.4	10.7	4.16	49	89.2 / 79.8 = 1.12
4	4	42.0	8.7	4.83	35	93.0 / 92.7 = 1.00
5	5	nets 56.4	clogged 6.4	~~7.70~~	57	
6	6	33.4	6.05	5.51	30	67.0 / 48.4 = 1.36
7	7	31.4	9.2	3.40	28	62.5 / 73.5 = 0.85?
8	8	55.0	9.51	5.78	21	110 / 76.4 = 1.44?
9	9	39.0	8.6	4.54	24	78.0 / 69.0 = 1.13
10	10	38.2	8.75	4.37	30	76.4 / 70.0 = 1.01
11	11	24.4	4.0	6.10	10	
12	12	Dandelion 2.17	1 Minut 2.61	initial 0.82	0	
13	13	27.7	6.50	4.26	4	
14		—	—	—		
15		26.7			0°	
					$\bar{x}$	1.10

$\frac{.34}{1.10} = .309 = 30\%$ error max.

39.9 M³/min × 1 Min. = $\frac{318.7}{8}$

8.9 M³/min × 1 Min. = $\frac{71.5}{8}$

4.52 M³/min × 1 Min. = $\frac{36.12}{8}$

Venus 18 Corrected meter data (Cont.)

Floating Net

*= net with [illegible]

r = 6.10

Fl.	1M M³/min	½M M³/min	Force of Wind Sea
13	5.4	0.89	2 2
13N	6.8*	1.12	2 2
14	5.3*	0.87	1 1
15	6.3*	1.03	3 2
16	3.7*	0.61	1 1
16N	3.1*	0.51	1 1
17	1.3*	0.21	1 1
18	4.4*	0.72	1 1
19	9.2*	1.51	3 3

$V_{SM} = 4.52$

$r \frac{1M \text{ over Fl.}}{\frac{1}{2}M \text{ over Fl.}} = \frac{.92}{.17} = 5.40$

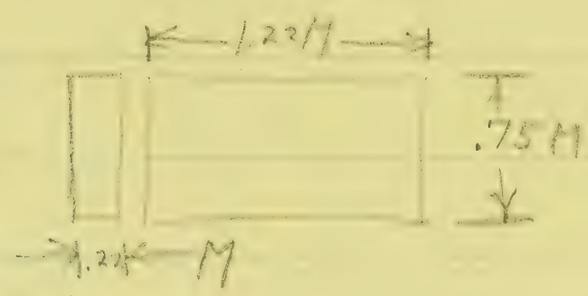
$r \frac{1M \text{ over surf}}{\frac{1}{2}M \text{ over surf}} = 4.00$

[illegible]

∴ use this ratio for ½M floating net:

$\frac{4.52 \times 5.40}{4.00} = 6.10$

$\bar{X}$ 1M M³/min W+S 1 = 4.1
$\bar{X}$ 1M M³/min W+S 2-3 = 6.9
} used for V-10 Fl. 1-12



∴ 1M Fl. $\frac{M^3}{.75M}$ = M² sea surface

½M Fl. $\frac{M^3}{.75M}$ = M² sea surface

or ⅓ × vol. = M² sea surface

Shipboard 1

PLANKTON ANALYSIS

Cruise V-10
Station SPT 13
Date July 13, '56
Net in
Net out
Position 39-18.5N, 14-28E.

Equipment 1M net
Depth tow 220 fath. = 2-0 [illegible]
Type tow vertical
$M^3 H_2O$ filtered 940 900
Displacement vol. 33 ml. = 35/$10^3 M^3$
50 ml. = displ. vol. large pyrosomes + medusae = 53/$10^3 M^3$

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt	1	50	2
K. pac.			
S. calif	19	20	100
S. decip	3	20	16
S. eleg.			
S. enfl.			
S. hex.	4	20	20
S. lyra	23	20	120
S. min.	3	50	67
S. serrat atl.	6	100	67
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			280
# spp.	7		

ratio = 42/200 =
S. lyr. II at 50 mm.

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	4	2	210	7
Atlantids				
Cladocera				
Copepods	40	2	2100	1
Chaetog.	59	2	2370	2
Dec. larv.	1	2	56	10
Doliolid	4	2	210	4
Euphausiids	5	2	220	2
Euph. eggs			280	
Fish eggs	1	5	22	10
Fish larv	5	5	110	9
Forams				
Larvacns				
Medusae	3	2	160	6
Ostracods	3	2	160	6
Polychts	3	5	64	
Pter. thc				
Pter. gym	1	10	110	15
Radio	3	2	160	6
Salps			169	
Siphonoph				
Squid				
39-100				
Pyrosoma	5	100	5.6	16
Harpact.	1	2	5.6	10
Mysids	1	5	5.6	10
Lepas larv.				
Colon'd seds	2	5	44	14
Pteraclaxonid	1	20	5.6	16

Shipboard

PLANKTON ANALYSIS

Cruise V-10
Station SPT-13
Date July 13 '58
Net in
Net out
Position 39-18.5N, 14-28E

$\frac{30}{157}$ = alq. = 3[illegible]

Equipment 1/2 M n.t
Depth tow 0-220 fathoms = 0-400 M.
Type tow vertical
$M^3 H_2O$ filtered 188 ✓
Displacement vol. 11 ml. = $5.9/10^2 M^3$
7 ml. = displ. vol. at 2 ppt temp. [illegible]
= $4.3/10^2 M^3$

CHAETOGNATHA

Species	#C.	%S.	#/$10^2 M^3$
E. ham.			
K. subt	2	25	4 ✓
K. pac.			
S. calif	2	25	4 ✓
S. decip	10		20 21
S. eleg.			
S. enfl.			
S. hex.	2		4 ✓
S. lyra	11		23 ✓
S. min.	10		20 21
S. serrat	5		10 ✓
S. serrat			
S. ten.			
S. ten.			
P. draco			
	19	25	40 ✓
Total chaets			125 127
# spp.	7		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^2 M^3$	Rank
Ceratium	4	[illegible]	170 ✓	5
Diatoms				
Dinoflag				
Noctiluca			430 ✓	3
Amphipods			8 ✓	17
Atlantids			20 21	14
Cladocera			130 ✓	6
Copepods			4260 ✓	1
Chaetogn.	3 ✓		210 ✓	6
Dec. larv			8 ✓	17
Dolioliids			40	11
Euphausiids			20 21	14
Euph. egg				
Fish eggs				
Fish larv			340	11
Forams			8 ✓	17
Larvacans			580	9
Medusae				
Ostracods			470 ✓	2
Polychts			580	9
Pteropoda			34 ✓	15
Pteropoda				
Rads	3	50	130 ✓	6
Salps				
Siphonoph				
Squid				
	5		210 ✓	4
	3		13 ✓	16

PLANKTON ANALYSIS

Cruise V-10
Station SPT-10
Date July 31, 1956
Net in 1428
Net out 2003
Position 40-18.5N 6-47.5E
50/100 = .5 = .28

Equipment 1M net
Depth tow 0-340M
Type tow Oblique
$M^3 H_2O$ filtered 1392
Displacement vol. 26 ml = 18 ml/$10^3 m^3$

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif	11	100	28 ✓
S. decip	7	100	18 ✓
S. eleg.			
S. enfl.	2	100	5 ✓
S. hex.	1	100	10 ✓
S. lyra	4	100	10 ✓
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
unidet	5		13 ✓
Total chaets			84 ✓
# spp.	5		

Chaets upon type of [illegible] on [illegible]

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera			480	
Copepods	15	100	460	2
Chaetogn.	4	100	100 ✓	3
Dec. larv				
Doliolids				
Euphaus.	2	100	50 ✓	5
Euph. egg				
Fish eggs				
Fish larv	4	100	3 ✓	11
Forams	1	100	26 ✓	6
Larvacns				
Medusae	1	100	26 ✓	6
Ostracods				
Polychts				
Pter. thc	5	20	1718	10
Pter. gym	1	100	1 ✓	12
Rads	70	100	1870 ✓	1
Salps	1	100	26 ✓	6
Siphonoph	4	100	100 ✓	3
Squid				
[illegible]	1	100	26 ✓	6

= 6 - 100 - 4

3 are Cyclothone

PLANKTON ANALYSIS

Cruise V-10
Station SPT-17
Date July 24 55
Net in 1233
Net out 1322
Position 33-10-30N, 122-46-00E

Equipment 1M net
Depth tow 0-985 M
Type tow vertical
$M^3 H_2O$ filtered 1785
Displacement vol. 1 ml / 25 m³

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			18
S. eleg.			
S. enfl.			130
S. hex.			
S. lyra			22
S. min.			13
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			184
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods			5	10
Atlantids				
Cladocera				
Copepods			850	2
Chaetogn.				
Dec. larv			5	10
Doliolids			13	
Euphaus.			340	3
Euph. egg			13	8
Fish eggs			13	8
Fish larv			5	10
Forams				
Larvacns				
Medusae			26	5
Ostracods				
Polychts			26	5
Pter. thc			26	5
Pter. gym				
Rad.			13000	1
Salps				
Siphonoph				
Squid				
			78	4
			5	10
			13	14
			13	14
			13	14

PLANKTON ANALYSIS

Cruise V-10
Station 3PT-16
Date July 22-23
Net in 1302
Net out 1423
Position 22-15-N, 22-15-30E

Equipment ½ M net
Depth tow 0-540 M.
Type tow
$M^3 H_2O$ filtered
Displacement vol.

No net reading

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip	12		27
S. eleg.			
S. enfl.	17		32
S. hex.			
S. lyra	14		32
S. min.	16		47
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			132 ✓
# spp.	4		

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	15		840	3
Diatoms	5		280	6
Dinoflag				
Noctiluca	10		560	4
Amphipods	2		12	14
Atlantids				
Cladocera	5		280	6
Copepods	33		1820	1
Chaetogn.	20		120	10
Dec. larv	1		6	25
Doliolids				
Euphausi.	9		90	12
Euph. egg				
Fish eggs	1		6	25
Fish larv	2		12	14
Forams	1		6	25
Larvacns	1		6	25
Medusae				
Ostracods	10		300	5
Polychts	3		76	13
Pter. thc	5		60	11
Pter. gym				
Rads	20		120	9
Salps				
Siphonoph	5		280	6
Squid				
	1		22	18
		21	210	8
	3		1	27
		20	1	27

PLANKTON ANALYSIS

Cruise V-10
Station SPT-18
Date July 25 1952
Net in
Net out
Position 36-34.23 N 15 E

Equipment
Depth tow
Type tow
M^3H_2O filtered
Displacement vol.

no meter reading

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt	5		12
K. pac.			
S. calif	2		2
S. decip	25		60
S. eleg.			
S. enfl.	30		70
S. hex.			
S. lyra	35		38
S. min.	2		5
S. serrat	2		2
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			207
# spp.	8		

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods	10		60	6
Atlantids	1		6	
Cladocera				
Copepods	80		480	1
Chaetogn.			267	3
Dec. larv	2		35	5
Doliolids	7		12	15
Euphausids			120	5
Euph. egg				
Fish eggs	3		13	14
Fish larv	2		5	17
Forams			12	15
Larvacns				
Medusae			24	11
Ostracods	7		40	7
Polychts			24	11
Pter. thc	2		5	17
Pter. gym				
Rads	24		280	2
Salps			35	8
Siphonoph			120	4
Squid	1		25	21
			34	11
			1	19
	1		25	10
	1		25	21
	2		5	20

PLANKTON ANALYSIS

Cruise _____
Station _____
Date _____
Net in _____
Net out _____
Position _____

Equipment _____
Depth tow _____
Type tow _____
$M^3 H_2O$ filtered _____
Displacement vol. _____

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise _____
Station _____
Date _____
Net in _____
Net out _____
Position _____

Equipment _____
Depth tow _____
Type tow _____
$M^3 H_2O$ filtered _____
Displacement vol. _____

CHAETOGNATHA

Species	#C	%S	$\#/10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise
Station
Date
Net in
Net out
Position

Equipment
Depth tow
Type tow
M^3H_2O filtered
Displacement vol. 1420

CHAETOGNATHA

Species	#C.	%S.	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise
Station
Date
Net in
Net out
Position

Equipment ½ M net
Depth tow 0
Type tow
$M^3 H_2O$ filtered 188
Displacement vol.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.	13		430
S. hex.			
S. lyra			
S. min.			1460
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			6.6
Total chaets			
# spp.			1897

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				8
Diatoms			820	
Dinoflag			2630	
Noctiluca				4
Amphipods				18
Atlantids			130	14
Cladocera	10		13	
Copepods			600	1
Chaetogn.				
Dec. larv			66	15
Doliolids			3	
Euphausi.			4	12
Euph. egg			177	
Fish eggs				2
Fish larv			66	16
Forams			1770	
Larvacns				
Medusae				18
Ostracods			177	12
Polychts			266	11
Pter. thc			30	9
Pter. gym				
Rads			0	7
Salps			995	
Siphonoph		55	2	31
Squid			440	
	9	50		10
		50	66	16
		100		13
		100		4
		1-50n	6.6	23

Condition normal inflow

PLANKTON ANALYSIS

Cruise _____
Station _____
Date _____
Net in _____
Net out _____
Position _____

Equipment _____
Depth tow _____
Type tow _____
$M^3 H_2O$ filtered _____
Displacement vol. _____

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphausids				
Euph. eggs				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Radis				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise V8
Station PLK #2
Date 13 NOV. 55
Net in
Net out
Position 20-32.2 N, 68-28.1 W

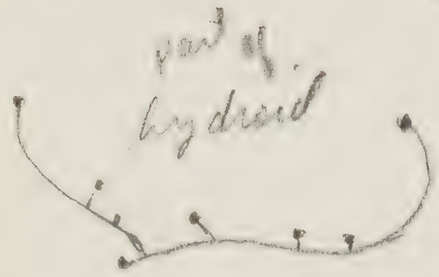
Equipment ½ M net
Depth tow ~~[illegible]~~ 230 m
Type tow
$M^3 H_2O$ filtered ~~[illegible]~~ 150 M3
Displacement vol. 14 ml.
per $10^3 M^3$ 93.5

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	25	2	8340	
Diatoms	2	10	133	
Dinoflag				
Noctiluca	34	1	22600	
Amphipods	3	10	200	
Atlantids				
Cladocera	2	10	133	
Cal. Copepods	28	1	18690	
Chaetogn.				
Dec. larv	1	10	66	
Doliolids	2	10	133	
Euphaus.	2	10	133	
Euph. egg				
Fish eggs				
Fish larv	3	50	40	
Forams				
Larvacns	39	4	6500	
Medusae	2	10	133	
Ostracods	16	5	2130	
Polychts	3	10	200	
Pter. thc	3	10	200	
Pter. gym				
Rads				
Salps				
Siphonoph	9	10	600	
Squid				
Harpact.	22	1	14650	
Rostrapsels	2	10	133	
bundles of hay moderately present				
Θ	25	5	3330	



PLANKTON ANALYSIS

Cruise V-8
Station PLK #3
Date 17 NOV. 55
Net in 1800
Net out 1855
Position 17-5.0N; 68-59.0 W

Equipment ½M net
Depth tow 1230M
Type tow
$M^3 H_2O$ filtered 1620 M^3
Displacement vol. 36 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium			679 ✓	
Diatoms			417 ✓	
Dinoflag				
Noctiluca			28450 ✓	
Amphipods			24	
Atlantids				
Cladocera			278 ✓	
Copepods			50600 ✓	
Chaetogn.				
Dec. larv			98 ✓	
Doliolids			61 ✓	
Euphaus.			110 ✓	
Euph. egg				
Fish eggs				
Fish larv			48 ✓	
Forams			9298 ✓	
Larvacns			7405 ✓	
Medusae			501 ✓	
Ostracods			2710 ✓	
Polychts			111 ✓	
Pter. thc			680 ✓	
Pter. gym				
Rads				
Salps			385 ✓	
Siphonoph			382 ✓	
Squid				
Bony			36 ✓	
Decapods			62 ✓	
Amphipods			49 ✓	
Larva			12 ✓	

For #'s/% of sample
see following 2 pages

Fine Material

PLANKTON ANALYSIS

Cruise V-8
Station PLK #3
Date 17 NOV. 55
Net in 1800
Net out 1855
Position 17-5.0N, 68-59.0W

Equipment ½ M net
Depth tow 1230 M
Type tow
$M^3 H_2O$ filtered 1620 M^3
Displacement vol. 36 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	28	4	432 ✓	
Diatoms	11	4	170 ✓	
Dinoflag				
Noctiluca	71	.2	21900 ✓	
Amphipods	2	10	12 ✓	
Atlantids				
Cladocera	14	4	216 ✓	
Copepods	105	.2	32400 ✓	
Chaetogn.				
Dec. larv	2	10	12 ✓	
Doliolids	2	5	24 ✓	
Euphausi.	5	10	30 ✓	
Euph. egg				
Fish eggs				
Fish larv	5	10	30 ✓	
Forams	28	.2	8650 ✓	
Larvacns	71	1	4380 ✓	
Medusae	15	4	231 ✓	
Ostracods	24	1	1480 ✓	
PLK Polychts	5	5	62 ✓	
Pter. thc	55	5	680 ✓	
Pter. gym				
Rads				
Salps	10	4	154 ✓	
Siphonoph	6	5	74 ✓	
Squid				
Pen.	1	5	12 ✓	
Pantopods	5	5	62 ✓	

Coarse
Material

PLANKTON ANALYSIS

Cruise V-8
Station PIK #3
Date 12 Nov. 55
Net in 1400
Net out 1455
Position 17-5.0N; 68-59.0W

Equipment ½M net
Depth tow 1230 M
Type tow
$M^3 H_2O$ filtered 1620 M^3
Displacement vol. 30 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	20	5	247 ✓	
Diatoms	20	5	247 ✓	
Dinoflag				
Noctiluca	106	1	6550 ✓	
Amphipods	2	10	12 ✓	
Atlantids				
Cladocera	5	5	62 ✓	
Copepods	59	12	18200 ✓	
Chaetogn.				
Dec. larv	14	10	86 ✓	
Doliolids	3	5	37 ✓	
Euphaus.	13	10	80 ✓	
Euph. egg				
Fish eggs				
Fish larv	3	10	18 ✓	
Forams	21	2	648 ✓	
Larvaens	49	1	3025 ✓	
Medusae	18	4	278 ✓	
Ostracods	20	1	1230 ✓	
Polychaes IIII	4	5	49 ✓	
Pter. thc				
Pter. gym				
Rads				
Salps	15	4	231 ✓	
Siphonoph	20	4	308 ✓	
Squid				
Ben. II	2	5	24 ✓	
Amphipoes IIII	4	5	49 ✓	
Lulifa I	1	5	12 ✓	
Gastropods				

PLANKTON ANALYSIS

Cruise V-8
Station PLK # 6
Date 26 NOV. 55
Net in 0139
Net out 0205
Position 16-36.2N, 72-09.6W

Equipment ½ M net
Depth tow 330 M
Type tow
$M^3 H_2O$ filtered 252
Displacement vol. 16 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	20	2	3970 ✓	
Diatoms				
Dinoflag				
Noctiluca	30	.2	59500 ✓	
Amphipods	2	20	39 ✓	
Atlantids				
Cladocera	5	5	397 ✓	
Copepods	73	.4	72500 ✓	
Chaetogn.				
Dec. larv				
Doliolids	13	5	1030 ✓	
Euphaus.				
Euph. egg	16	5	1270 ✓	
Fish eggs	1	5	79 ✓	
Fish larv	6	20	119 ✓	
Forams	34	1	13490 ✓	
Larvacns	20	1	7940 ✓	
Medusae				
Ostracods	22	1	8740 ✓	
Polychts	20	5	1585 ✓	
Pter. thc	30	4	2970 ✓	
Pter. gym				
Rads				
Salps				
Siphonoph	12	5	953 ✓	
Squid				
Harpact.	20	.4	19850 ✓	
Gastropods	19	4	1885 ✓	

Gastropod with spines 5 - 20 99 ✓

PLANKTON ANALYSIS

Cruise V8
Station PLK # 7
Date 26 NOV. 1955
Net in 0936
Net out 1057
Position 15-45.4 N, 72-45.0 W

Equipment ½ M net
Depth tow 850 m
Type tow
$M^3 H_2O$ filtered 500
Displacement vol. 13 ml

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	27	2	2100 ✓	
Diatoms				
Dinoflag				
Noctiluca	40	.4	20000 ✓	
Amphipods				
Atlantids				
Cladocera	2	10	40 ✓	
Copepods	59	.2	59000 ✓	
Chaetogn.				
Dec. larv	1	10	10 ✓	
Doliolids	4	10	80 ✓	
Euphaus.	3	5	120 ✓	
Euph. egg				
Fish eggs	3	10	60 ✓	
Fish larv	2	20	20 ✓	
Forams	56	1	11200	
Larvacns	31	2	3100 ✓	
Medusae	3	5	120 ✓	
Ostracods	42	2	4200 ✓	
Polychts	3	10	60 ✓	
Pter. thc	24	4	1200 ✓	
Pter. gym				
Rads	30	1	6000 ✓	
Salps				
Siphonoph	15	5	600 ✓	
Squid				
Harpact.	61	1	12200 ✓	
Ben. I	1	10	20 ✓	
Torichodesmium	2	10	40 ✓	
Sagitta	2	10	40 ✓	
Decapods	14	5	560 ✓	
Lepas anatifera	1	10	20 ✓	

PLANKTON ANALYSIS

Cruise V8
Station PLK # 8
Date 27 NOV. 1955
Net in 0225
Net out 0251
Position 15-9.5N, 73-25.8W

Equipment ½ M net
Depth tow 210 M
Type tow
$M^3 H_2O$ filtered 301
Displacement vol. 10 ml

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	35	4	2910 ✓	
Diatoms	3	5	199 ✓	
Dinoflag				
Noctiluca	73	.4	60600 ✓	
Amphipods				
Atlantids				
Cladocera				
Copepods	88	.2	146000 ✓	
Chaetogn.				
Dec. larv	4	10	133 ✓	
Doliolids	1	5	66 ✓	
Euphaus.	19	10	633 ✓	
Euph. egg				
Fish eggs				
Fish larv	3	10	99 ✓	
Forams	48	1	15900 ✓	
Larvacns	30	2	4990 ✓	
Medusae	8	5	532 ✓	
Ostracods	23	2	3825 ✓	
Polychts	2	5	133 ✓	
Pter. thc	33	4	2740 ✓	
Pter. gym				
Rads				
Salps	8	5	532 ✓	
Siphonoph	21	4	1740 ✓	
Squid				
Ben	2	5	133 ✓	
Lucifer				
Gastropods	5	4	416 ✓	

PLANKTON ANALYSIS

Cruise V8
Station PLK # 10
Date 28 NOV. 1955
Net in 1638
Net out 1705
Position 11-54.7 N, 75-42.6 W

Equipment ½ M net
Depth tow 365 M
Type tow
$M^3 H_2O$ filtered 229
Displacement vol. 16 ml

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	99	2	21600 ✓	
Diatoms	14	5	1220 ✓	
Dinoflag				
Noctiluca	117	.4	127500 ✓	
Amphipods				
Atlantids				
Cladocera	1	5	87 ✓	
Copepods	81	.4	88490 ✓	
Chaetogn.				
Dec. larv	5	10	218 ✓	
Doliolids	1	5	87 ✓	
Euphaus.	15	10	655 ✓	
Euph. egg				
Fish eggs				
Fish larv	2	10	87 ✓	
Forams	42	.4	45900 ✓	
Larvacns	33	1	14400 ✓	
Medusae	2	5	175 ✓	
Ostracods	32	1	13990 ✓	
Pln. Polychts	4	5	349 ✓	
Pter. thc	36	1	15700 ✓	
Pter. gym				
Rads	47	.2	102500 ✓	
Salps	5	5	438 ✓	
Siphonoph	12	5	1049 ✓	
Squid				
Gastropods	10	4	1090 ✓	

PLANKTON ANALYSIS

Cruise V-8
Station PLK #11
Date 29 NOV 1955
Net in 2425
Net out 2451
Position 11-32.6N, 75-54.5W

Equipment ½M net
Depth tow 380M
Type tow
$M^3 H_2O$ filtered 168
Displacement vol. 18 ml

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3M^3$	Rank
Ceratium	45	1	26800 ✓	
Diatoms				
Dinoflag				
Noctiluca	71	.4	105500 ✓	
Amphipods	2	10	119 ✓	
Atlantids				
Cladocera	5	10	298 ✓	
Copepods	77	.4	114500 ✓	
Chaetogn.				
Dec. larv	2	10	119 ✓	
Doliolids	7	10	416 ✓	
Euphaus.	10	10	595 ✓	
Euph. egg				
Fish eggs				
Fish larv	2	10	119 ✓	
Forams	34	1	20200 ✓	
Larvacns	55	2	16350 ✓	
Medusae	6	10	357 ✓	
Ostracods	12	2	3570 ✓	
Polychts	1	5	119 ✓	
Pter. thc	17	2	5060 ✓	
Pter. gym				
Rads	46	1	27400 ✓	
Salps	3	10	178 ✓	
Siphonoph	7	10	416 ✓	
Squid				
Amphipod	1	10	59 ✓	
Gastropods	5	5	595 ✓	

PLANKTON ANALYSIS

Cruise V-8
Station PhK #13
Date 30 NOV. 1955
Net in 2037
Net out 2105? (see log)
Position 12-23.3N, 77-45.5W

Equipment ½M net
Depth tow 390 M
Type tow
M^3H_2O filtered 204
Displacement vol. 10 ml.

CHAETOGNATHA

Species	#C	%S	#/10^3M^3
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/10^3M^3	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise V-8
Station PLK #14
Date 1 DEC 55
Net in 1108
Net out 1130 ? (see log)
Position 11-16.8 N, 79-13.1 W

Equipment ½ M net
Depth tow 405 M
Type tow
$M^3 H_2O$ filtered 173
Displacement vol. 6 ml

CHAETOGNATHA

Species	#C.	%S.	$\#/10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise V-8
Station PLK #15
Date 2 DEC. 1955
Net in see log
Net out
Position 9-34.4N, 79-46.4W

Equipment ½ M net
Depth tow
Type tow
$M^3 H_2O$ filtered
Displacement vol.

CHAETOGNATHA

Species	#C	%S	$\#/10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	$\#/10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise V-8
Station PLK #16
Date 7 DEC. 1955
Net in 0635
Net out 0705
Position 11-23.2 N, 77-37.1 W

Equipment ½ M net
Depth tow 400 M
Type tow
$M^3 H_2O$ filtered 210
Displacement vol. 19 ml.

CHAETOGNATHA

Species	#C	%S	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium				
Diatoms				
Dinoflag				
Noctiluca				
Amphipods				
Atlantids				
Cladocera				
Copepods				
Chaetogn.				
Dec. larv				
Doliolids				
Euphaus.				
Euph. egg				
Fish eggs				
Fish larv				
Forams				
Larvacns				
Medusae				
Ostracods				
Polychts				
Pter. thc				
Pter. gym				
Rads				
Salps				
Siphonoph				
Squid				

PLANKTON ANALYSIS

Cruise V-8
Station PLK #17
Date 8 DEC 1955
Net in 0731
Net out 0800
Position 12-51.2N, 77-22.0W

Equipment ½ M net
Depth tow 380 M
Type tow
$M^3 H_2O$ filtered 226
Displacement vol. 12 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	49	4	5425 ✓	
Diatoms	27	5	2380 ✓	
Dinoflag				
Noctiluca	161	.4	178000 ✓	
Amphipods	4	10	177 ✓	
Atlantids				
Cladocera				
Copepods	61	.4	67500 ✓	
Chaetogn.				
Dec. larv	3	10	133 ✓	
Doliolids	5	5	443 ✓	
Euphaus.	6	10	265 ✓	
Euph. egg				
Fish eggs				
Fish larv	2	10	88 ✓	
Forams	26	2	5760 ✓	
Larvacns	23	1	10190 ✓	
Medusae	11	5	974 ✓	
Ostracods	33	4	3650 ✓	
PLK Polychts	4	5	354 ✓	
Pter. thc	11	5	974 ✓	
Pter. gym				
Rads	47	2	10400 ✓	
Salps	9	5	798 ✓	
Siphonoph	17	5	1510 ✓	
Squid				
Bundle of eggs	6	5	531 ✓	
Benthic	1	5	88 ✓	
Gastropods	7	5	620 ✓	

4 or 5 flatfish larvae

PLANKTON ANALYSIS

Cruise V-8
Station PLK # 23
Date 17 Dec. 1955
Net in 2412
Net out 2440
Position 18-05.9N, 80-23.0W

Equipment ½ M net
Depth tow 380 M
Type tow
$M^3 H_2O$ filtered 218
Displacement vol. 7 ml.

CHAETOGNATHA

Species	#C.	%S.	#/$10^3 M^3$
E. ham.			
K. subt			
K. pac.			
S. calif			
S. decip			
S. eleg.			
S. enfl.			
S. hex.			
S. lyra			
S. min.			
S. serrat			
S. serrat			
S. ten.			
S. ten.			
P. draco			
Total chaets			
# spp.			

TOTAL ZOOPLANKTON

Group	#C	%S	#/$10^3 M^3$	Rank
Ceratium	33	2	7575 ✓	
Diatoms	12	5	1100 ✓	
Dinoflag				
Noctiluca	63	1	28900 ✓	
Amphipods	4	10	183 ✓	
Atlantids				
Cladocera				
Copepods	68	.4	78000 ✓	
Chaetogn.				
Dec. larv	2	10	92 ✓	
Doliolids	2	5	183 ✓	
Euphausids	10	10	459 ✓	
Euph. egg				
Fish eggs				
Fish larv	3	10	138 ✓	
Forams	29	4	3320 ✓	
Larvaceans	26	2	5970 ✓	
Medusae	4	5	367 ✓	
Ostracods	17	2	3900 ✓	
MK Polychaete	2	5	1183 ✓	
Pteropoda	18	2	4125 ✓	
Pteropod sym				
Radio				
Salps	13	5	1190 ✓	
Siphonoph	14	5	1280 ✓	
Squid				
Cephalopod	1	5	92 ✓	
Isopod	1	5	92 ✓	
Gastropods	2	2	459 ✓	
Clam larvae	5	5	459 ✓	

Spanish plankton sample

PLANKTON ANALYSIS

Cruise ✓
Station
Date Summer 1956
Net in
Net out
Position

Equipment
Depth tow
Type tow
$M^3 H_2O$ filtered
Displacement vol.

CHAETOGNATHA

Species	#C	%S	~~#/10³M³~~ #/100M³	%
E. ham.				
K. subt				
K. pac.				
S. calif	5	20	25	7
S. decip				
S. eleg.				
S. enfl.	54	20	270	80
S. hex.				
S. lyra				
S. min.				
S. serrat				
S. serrat				
S. ten. stand.	9	20	45	13
S. ten.				
P. draco				
Total chaets			340	
# spp.	3			

TOTAL ZOOPLANKTON

Group	#C	%S	~~#/10³M³~~ #/100M³	~~Rank~~ %
Ceratium	26	10	260	
Diatoms				
Dinoflag				
Noctiluca	3	10	30	
Amphipods	1	20	5	
Atlantids	6	10	60	
Cladocera	35	3	1166	
Copepods	190	1	1900	
Chaetogn.	68	20	340	
Dec. larv	4	10	40	
Doliolids	44	2	2200	
Euphaus.	2	10	20	
Euph. egg				
Fish eggs	29	3	966	
Fish larv	9	10	90	
Forams	21	10	210	
Larvacns	6	10	60	
Medusae				
Ostracods				
Polychaes	2	10	20	
Pter. thc	29	10	290	
Pter. gym				
Rads				
Salps				
Siphonoph	36	10	360	
Squid				
Harpact	36	10	360	
Stomatopod	39	5	390	
Creiis acuula	5	10	50	
anchovy eggs	144	1	14400	
gastropods	16	10	160	

13
18

B

V-7
PLANKTON

a= 1 meter net
b= 1/2 meter net

x= Jean Pettit
+= Alan Be done & present
-= not present (Be)

Samp. No.	Disp. Vol.	Foram. Removed	Chaet. Exam.	Total Zooptank	Ost. Removed	Comments
1a	x	x	x	x		
		not pres.				
2a	x	x	x	x		
		not pres.				
3a	x	x	x	x		
		not pres.				
4a	x	x +	x	x		
		not pres.				
5a						3 jars sargasso
6b			x	x		vert. tow to bot.
7a	x	x +	x	x		
8a	x		x	x		
9a	x		x	x		
10a	x		x	x		
11a	x	+	x	x		
12b	x	x	x	x		
13b	x	+	x	x		
14b	x	x	x	x		
15b	x	x		x		BT winch
16b	x	x		x		
17b						chem. ana.
18b	x			x		BT
19a	x	x	x	x		
19b	x	x	x	x		
20a	x	x	x	x		
20b	x	x		x		
21a	x	x	x	x		
21b	x	+		x		
22b	x	+		x		
23a						chem. ana.
23b						chem. ana.
24a	x	x	x	x		
24b	x			x		
25a	x	x	x	x		
25b	x		x	x		
26a	x	x	x	x		
26b	x	+	x	x		
27a	x	x	x	x	x	
27b	x		x	x		
28a	x	x	x	x	x	
28b	x		x	x		
29a	x		x	x	x	
29b	x		x	x		
30a	x		x	x	x	
30b	x		x	x		
31						

Samp. No.	Disp. Vol.	Foram. Removed	Chaet. Exam.	Total Zooptank	Ost. Removed	Comments
31a	x		x	x	x	
31b	x	+	x	x		
32a	x		x	x	x	
32b	x	+	x	x		
33a	x		x	x	x	
33b	x		x	x		
34a	x	x	x	x	x	
34b	x		x	x		
35a	x		x	x	x	
35b	x		x	x		
36a	x		x	x	x	
36b	x			x		
37a	x		x	x		
37b	x			x		
38a	x	x	x	x		
38b	x	+		x		
39a	x	x + not pres.	x	x		
39b	x			x		
40a	x		x	x		
40b	x	x		x		
41a	x	x	x	x		
41b	x	x		x		
42a	x	x	x	x		
42b	x			x		
43a	x	x	x	x		
43b	x			x		
44a	x	x	x	x		
44b	x					
45a	x			x		
45b	x			x		
46a	x	x	x	x		
46b	x			x		
47a	net lost			x		
47b	x					

V10 - reference chart

Wire #

10 — 5.4
11
12
13
14
15 — 6.2
16 — 6.4
17 — 6.5
18 — 6.7
19 — 6.9
20 — 7.0
21 — 7.2
22 — 7.3
23 — 7.5
24 — 7.7
25 — 7.8
26 — 8.0
27 — 8.1
28 — 8.3
29 — 8.4
30 — 8.5
31 — 8.6
32 — 8.7.
33 — 8.9
34 — 9.1
35 — 9.3
36 — 9.4
37 — 9.6
38 — 9.7
39 — 9.8
40 — 10.0
41 — 10.1
42 — 10.2
43 — 10.2
44 — 10.3
45 — 10.4
46 — 10.5
47 — 10.6
48 — 10.6
49 — 10.7
50 — 10.8
53 = 11.0
55 — 11.2
56 11.3
58 = 11.4
60 — 11.6

V10 = Start use of current meters 9/27/56
(Medit. cruise)

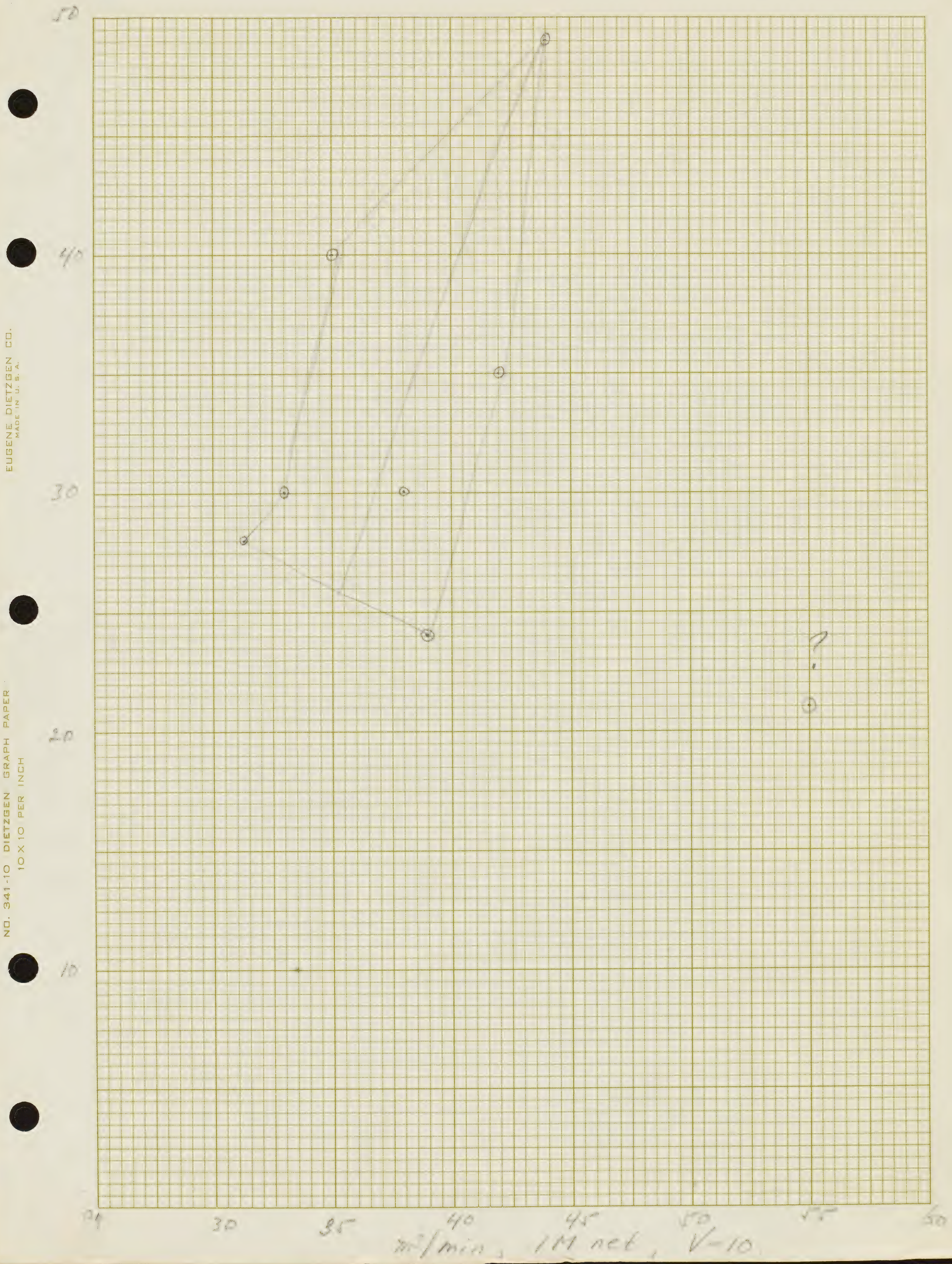
Measurement of volume of H_2O filtered

V7 and V8 samples had no current meters.
Following is method of measurement vol. H_2O filtered:

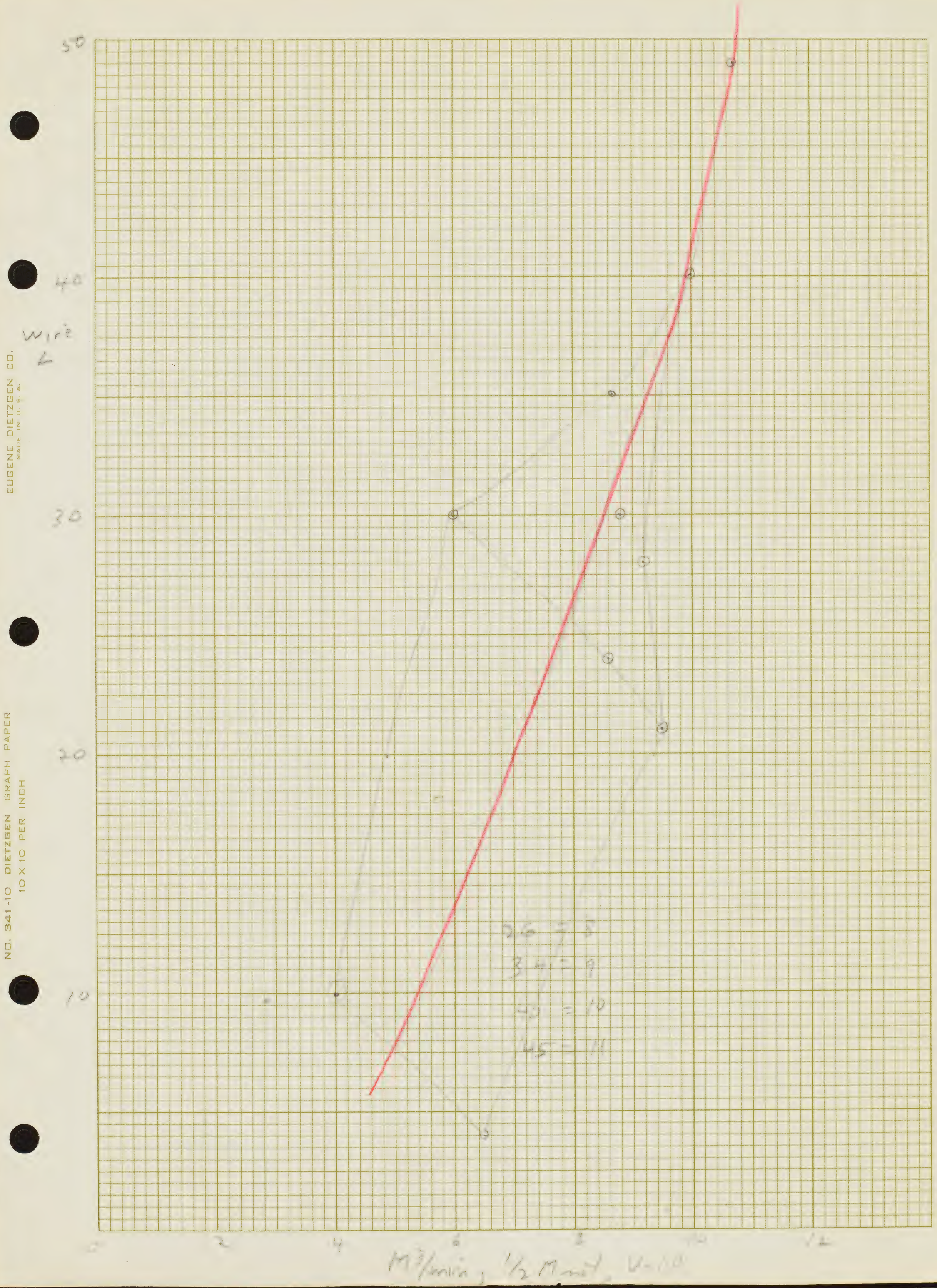
I (1). 1 revolution of current meter = 0.48 m. distance.
(independent of ship's velocity).

(2). 0.015 m/sec is lowest reliable velocity that current meter should be towed at.

II. current meter revolutions $\times \frac{\text{meters}}{\text{rev}} \times \frac{1}{4} m^2 =$ ____ m^3 filt
" " " $\times$ 0.48 $\times \frac{1}{4} m^2 =$ ____ m^3 "



NO. 341-10 DIETZGEN GRAPH PAPER
10 X 10 PER INCH
EUGENE DIETZGEN CO.
MADE IN U. S. A.


50
40
30
20
10
wire
L
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10 X 10 PER INCH
2
4
6
8
10
12
M³/min, ½ Mod, V-10

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10 X 10 PER INCH

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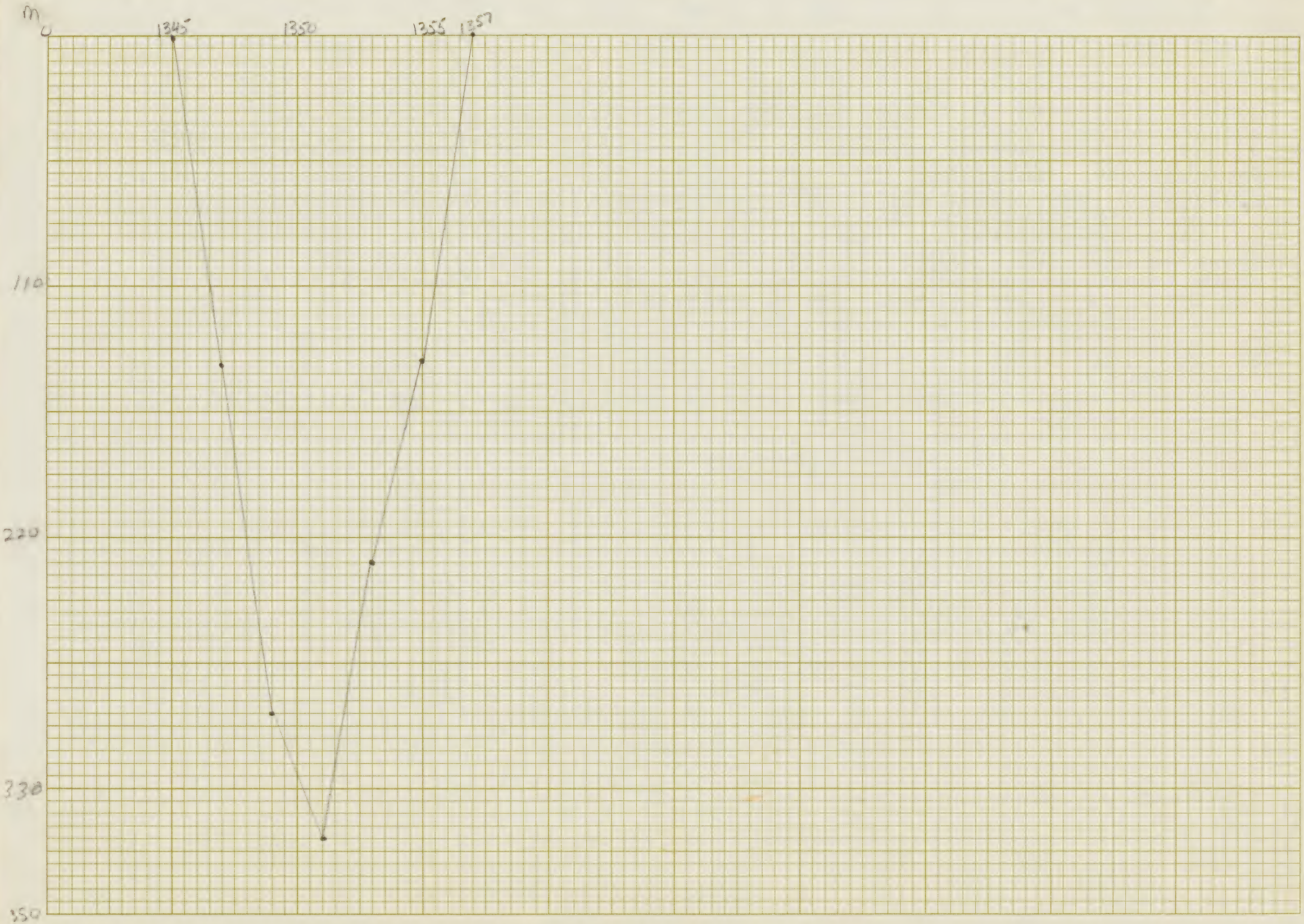

V 7-18 B-T vmacy

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V7-46

NO. 341-10 DIETZGEN GRAPH PAPER
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MADE IN U. S. A.

V7-13

V-7, 14

Constant 450 MWO
Time: = 30 mins
or: 30M/min.

	W.O.	Depth
1822 surface	—	0
1823 - 40°	30M	25M
1825 - 40°	90M	70M
1835 - 45°	390 m	275 m
1837 - 40°	450 480	350 370
1839 - 40°	420m	320m
1846 - 40°	210 m	160m
1853 surface	—	0

~~V7-15~~
~~450 MWO~~
~~time - 30 min.~~
~~15 m/min~~

V7-18
time - 12 min
75M/min

	W.O.	depth
1345 surface	—	0
1347 - 25°	150 M	135 M
1349 - 25°	300 M	270 M
1351 - 45°	450M	320 M
1353 - 45°	300 M	210M
1355 - 30°	150M	130M
1357 - surface		

V7 - 19
450 M WO
Time: 24 min
38 M / min

		w.o.	depth
1452	surface	—	0
1453	55°	38 m	
1454	55°	76	
1455	51°	114	
1456	50°	152	
1457	48°	190	
1458	45°	228	
1459	43°	266	
1500	40°	304	
1501			
1507	39°	342	
1508	40°		
1509	40°		
1510	42°		
1511	47°		
1512	50°		
1513	53°		
1514	57°		
1515	60° sight		

26
17 | 450
34
110
102
8

V7-46

3014 / min - down
2614 / min - up

		w out	depth
0208	surface	0	0
0211	27°	90 m	80
0211.5	28°	105 m	90
0212	32°	120 m	100
0212.5	35°	135 m	110
0213	39°	150 m	115
0213.5	43°	165 m	120
0214	44°	180 m	130
0214.5	46°	195 m	135
0215	47°	210 m	143
0215.5	50°	225 m	145
0216	51°	240 m	152
0217	54°	270 m	160
0218	55°	300 m	170
0219	56°	330 m	187
0220	58°	360 m	190
0221	59°	390 m	195
0222	60°	420 m	210
0223	59°	450 m	230
0226	59°	424 m	215
0227	57°	398 m	215
0228	56°	372 m	210
0229	55°	346 m	200
0230	55°	320 m	185

Book
Case
Shelf

		w.o	depth
0231	55°	294 m	170
0232	55°	268 m	155
0233	56°	242 m	138
0234	56°	216 m	120
0235	56°	190 m	105
0236	58°	164 m	85
0237	57°	138 m	75
0238	54°	112 m	65
0239	52°	86 m	50
0240	52°	60 m	37
0241	53°	34 m	20
0242	57°	8	0
[illegible]	58°		
[illegible]	surface		

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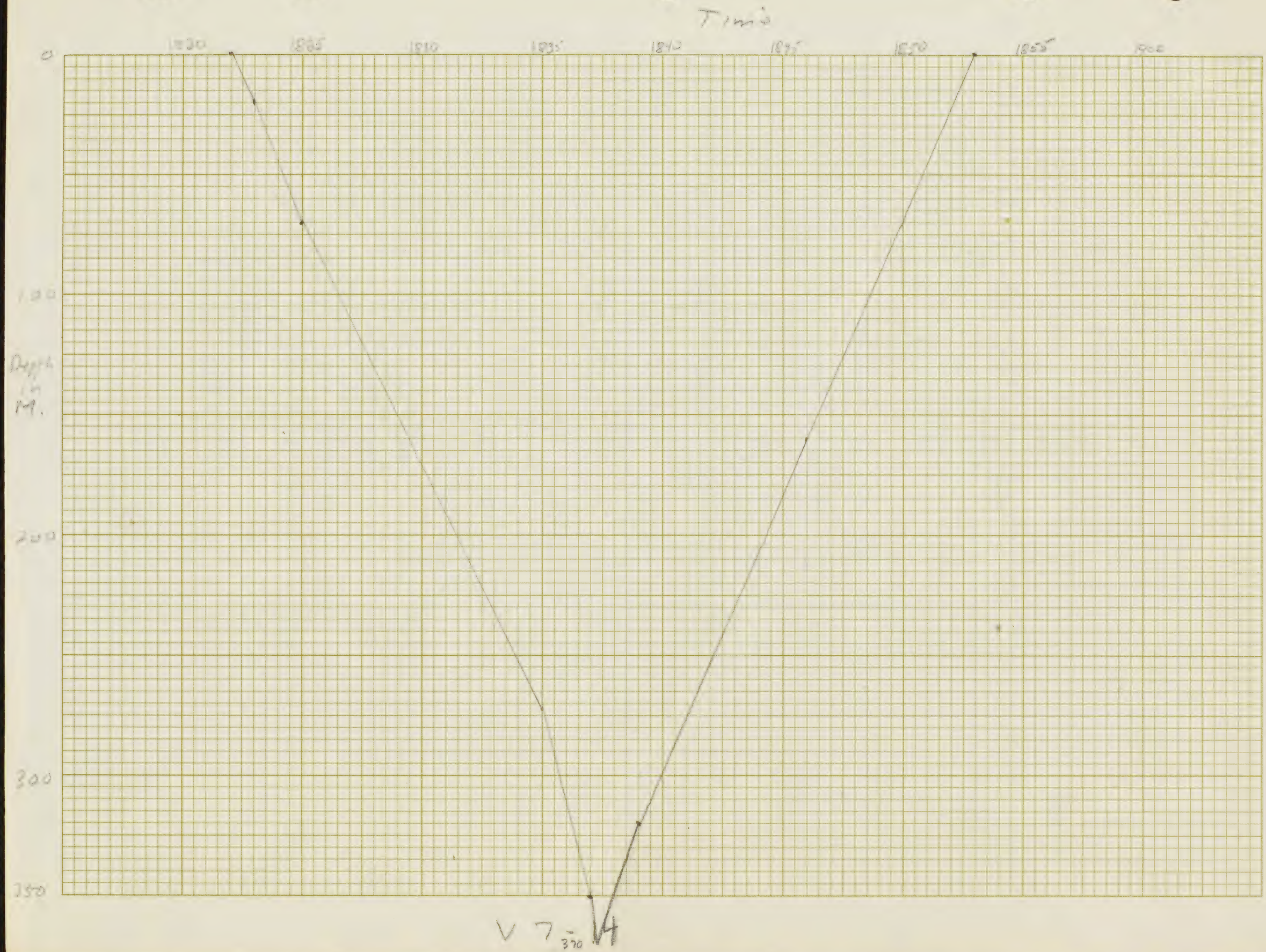

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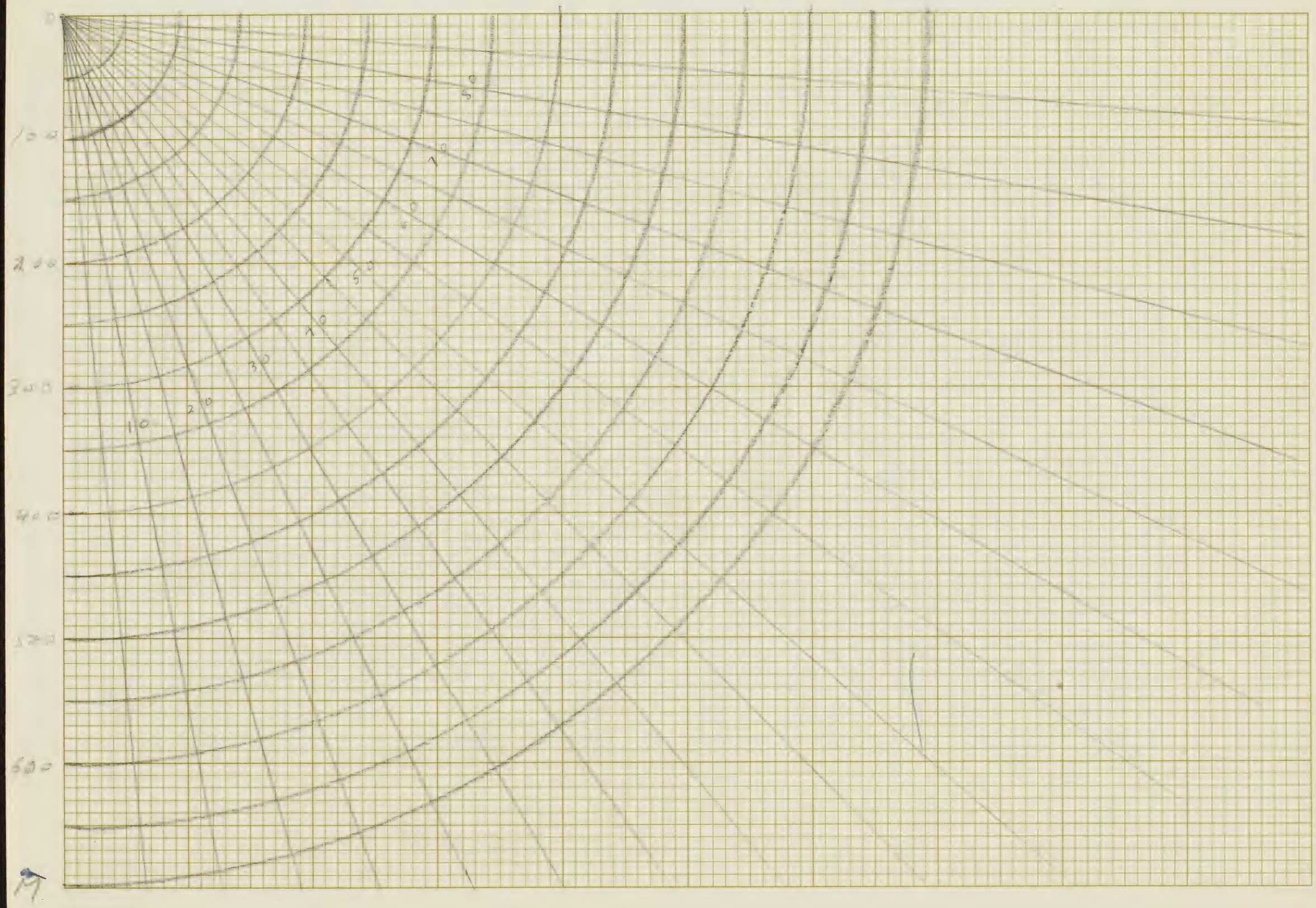
10 X 10 PER INCH

EUGENE DIETZGEN CO.
MADE IN U. S. A.



1 fm = 1.83 m.

$\frac{\pi r^2}{(1/2)^2} = \frac{\pi (1/2)^2}{(1/2)^2} = 0.79$

V7 – 1/2 m. samples

9/27/56

Recalculation of Vol. H_2O Filtered and Depth of Tow

by A. Bé

#12 AWL = 50°
G = 10.8
LT = 23
VHF = 23 × 10.8 = 290 m^3

since 1/2 m. circular diam. net used, must multiply VHF by 0.79 → 230 m^3

1/2 m. tow at 0-300 m. means 230 Fathoms (= 420.9 m.) wire out.

@ 50°, max depth of tow is:

$d = 421 \times \cos 50° = 270$ m
$421 \times .65$

#13 AWL = 55°
G = 11.2
LT = 21
VHF = 235 m^3 → 190 m^3

~~@ 35° min. wire~~
~~$d = 421 \times .82 = 350$ m~~

$d = \cos 60 \times 421 = 210$ m.

#14 AWL = 40°
G = 10.0
LT = 31
VHF = 310 m^3 → 245 m^3

~~@ 40°~~
~~$d = 421 \times .77 = 325$ m~~

$d = \cos .40 \times 421 = 320$ m

#15 AWL = 60°
G = 11.6
LT = 29
VHF = 337 m^3 → 267 m^3

$d = \cos .60 \times 421 = 210$ m.

#16 AWL = 55°
G = 11.2
LT = 14
VHF = 14 × 11.2 = 157 m^3
→ 125 m^3

$d = \cos 55 \times 421 = 240$ m.

#17 No sample

#18 AWL = 35°
G = 9.3
LT = 12
VHF = 12 × 9.3 = 112 m³
→ 90 m³

d = cos 35 × 421 = 345 m

#19 AWL = 48°
G = 10.6
LT = 31
VHF = 31 × 10.6 = 328 m³
→ 260 m³

d = cos 39 × 421 = 330 m

#20 AWL = 55°
G = 11.2
LT = 31
VHF = 31 × 11.2 = 346 m³
270 m³

d = cos 60 × 421 = 210 m

#21 AWL = 38°
G = 9.7
LT = 24
VHF = 24 × 9.7 = 232 m³
182 m³

d = cos 40 × 421 = 320 m

#22 AWL = surf. tow

surface tow

#23 (no sample)

#24 AWL = 37°
G = 9.6
LT = 27.
VHF = 27 × 9.6 = 260 m³
205 m³

d = cos 35 × 421 = 345 m

#25. AWL = 40°
G = 10.0
LT = 31
VHF = 310 m³ → 245 m³

d = cos 40 × 421 = 325 m

#26 AWL = 55°
G = 11.2
LT = 25
VHF = 25 × 11.2 = 280 m³ → 220 m³

d = cos 55 × 421 = 240 m

#27 AWL = 50°
G = 10.8
LT = 28
VHF = 28 × 10.8 = 303 m³ → 24[illegible] m³

d = cos 44 × 421 = 300 m

#28 AWL = 58°
G = 11.4
LT = 26
VHF = 26 × 11.4 = 297 m³
234 m³

d = cos 58 × 421 = 225 m

#29 AWL = 53°
G = 11.0
LT = 32
VHF = 32 × 11 = 352 m³ → 277 m³

d = cos 55 × 421 = 240 m

#30 AWL = 58
G = 11.4
LT = 30
VHF = 30 × 11.4 = 342 m³
270 m³

(a) 56°
d × cos 56 × 421 = 235 m

#31. AWL = 45°
G = 10.4
LT = 32 min
VHF = 32 × 10.4 = 354 m³
280 m³

(a) = 44°
d = cos 44 × 421 = 300 m

#32 AWL = 60°
G = 11.6
LT = 30 min
VHF = 30 × 11.6 = 348 m³ 275 m³

(a) 58
d = cos 58 × 421 = 225 m

#33 AWL = 58°
G = 11.4
LT = 23 min.
VHF = 23 × 11.4 = 264 m³ 208 m³

d = cos 55 × 421 = 240 m

#34 AWL = 45°
G = 10.4
LT = 31
VHF = 31 × 10.4 = 322 m³ 254 m³

d = cos 44 × 421 = 300 m

#35 AWL = 56°
G = 11.3
LT = 23 min
VHF = 23 × 11.3 = 260 m³ 205 m³

d = cos 57 × 421 = 230 m

#36

AWL = 35°

G = 9.3

LT = 30

VHF = 30 × 9.3 = 279 m³

220 m³

(a) 33°

d = Cos 33° × 421 = 355 m

.84

#37

AWL = 60°

G = 11.6

LT = 32 min.

VHF = 32 × 11.6 = 372 m³

294 m³

(a) 59°

d = Cos 59 × 421 = 220 m

#38

AWL = 45°

G = 10.4

LT = 33

VHF = 33 × 10.4 = 344 m³

270 m³

(a) 50°

d = Cos 50 × 421 = 270 m

#39

AWL = 53°

G = 11.0

LT = 31

VHF = 31 × 11 = 341 m³

278 m³

(a) 55°

d = Cos 55 × 421 = 240 m

#40

AWL = 41°

G = 10.1

LT = 31 min

VHF = 31 × 10.1 = 313 m³

247 m³

(a) 57°

~~d = Cos 57 × 421 = 230 m~~

d = Cos. 39 × 421 = 330 m

#41

AWL = 57°

G = 11.3

LT = 23

VHF = 23 × 11.3 = 260 m³

205 m³

(a) 57°

d = Cos 57 × 421 = 230 m

#42 AWL = 48°
G = 10.6
LT = 29
VHF = 29 × 10.6 = 308 m³
253 m³

#43 AWL = 60°
G = 11.6
LT = 36,
VHF = 36 × 11.6 = 417 m³
320 m³

#44 AWL = 45°
G = 10.4
LT = 38
VHF = 38 × 10.4 = 396 m³
312 m³

#45 AWL = 53°
G = 11.0
LT = 39
VHF = 39 × 11 = 430 429 m³

#46 AWL = 45°
G = 10.4
LT = 49
VHF = 49 × 10.4 = 510 m³
402 m³

#47 AWL = 40°
G = 10.0
LT = 85
VHF = 10 × 85 = 850 m³ 670 m³

(a) 36°
d = Cos.36 × 421 = 340 m
.81

(a) 58°
d = Cos.58 × 421 = 225 m
.53

(a) 42°
d = Cos.42 × 421 = 315 m
.75

(a) 52°
d = Cos.52 × 421 = 260 m
.62

(a) 59°
d = Cos 59° × 421 = 218 m
.52

(a) depth ±?

BOB BIERI

YOU CAN GET LAT, LONG FROM MASTER

PLANKTON STATIONS U-7 OMITTED FROM MAP

	Time	LAT	LONG
13 AUG	1903-1913		
16 "	0820		
17 "	1738-1810		
24 "	0825-0906		
10 Aug	0600±		
11 Aug	evening (1525)		
12 Aug	0800±		

aug 10,

11 2405, 2180 fall

~~38-09N, 61-05W~~

12日 2140 aug 13, 55

#12, 38-09N, 61-05W

aug 12, 1200, ~~2180 fall~~

2079 fall.

2520 → 1743 fall

2210 - 2353

60 sec for 60 feet

30

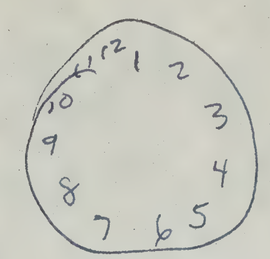
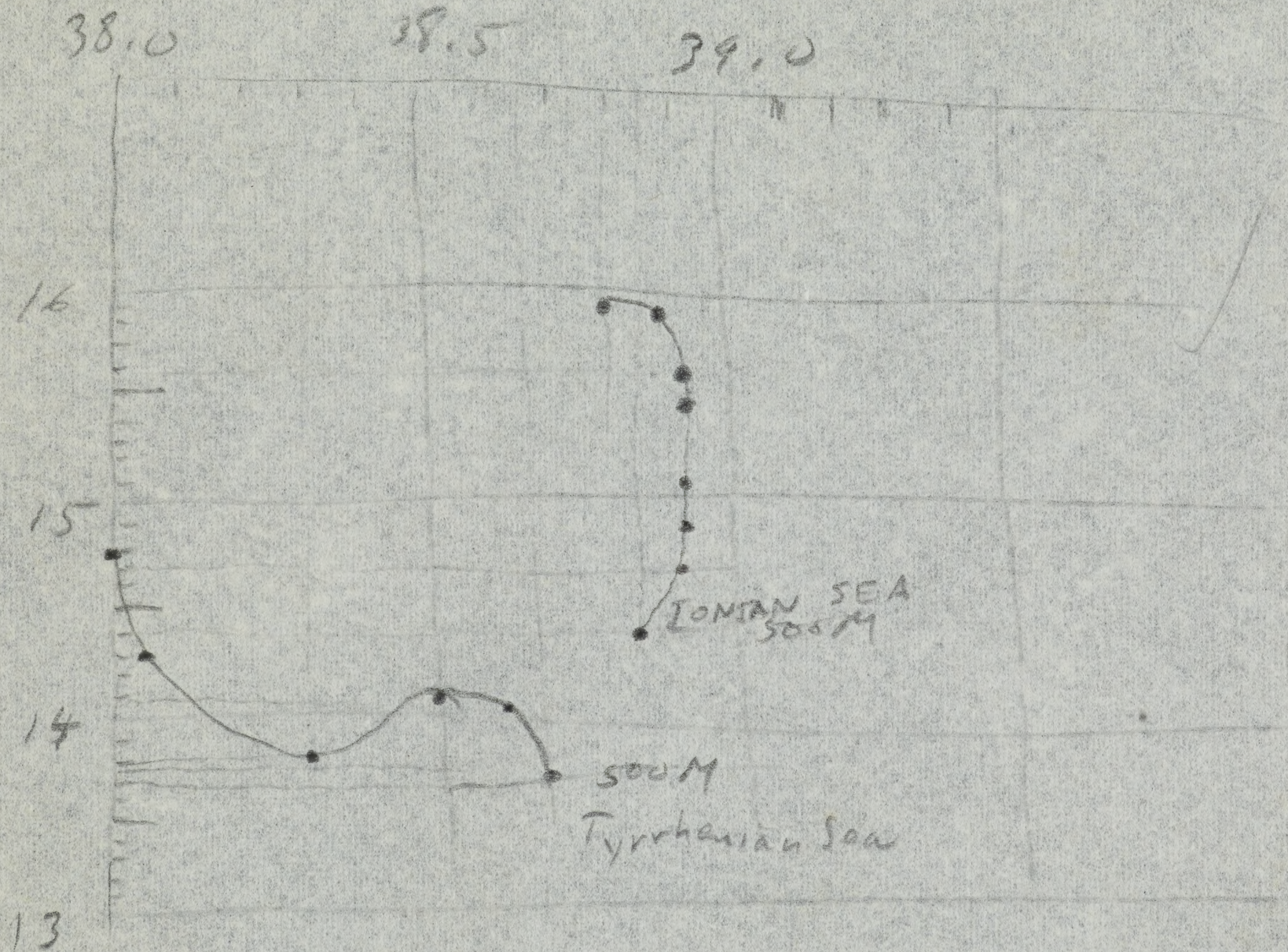


fig. 2

Tyrrhen.

Ion.

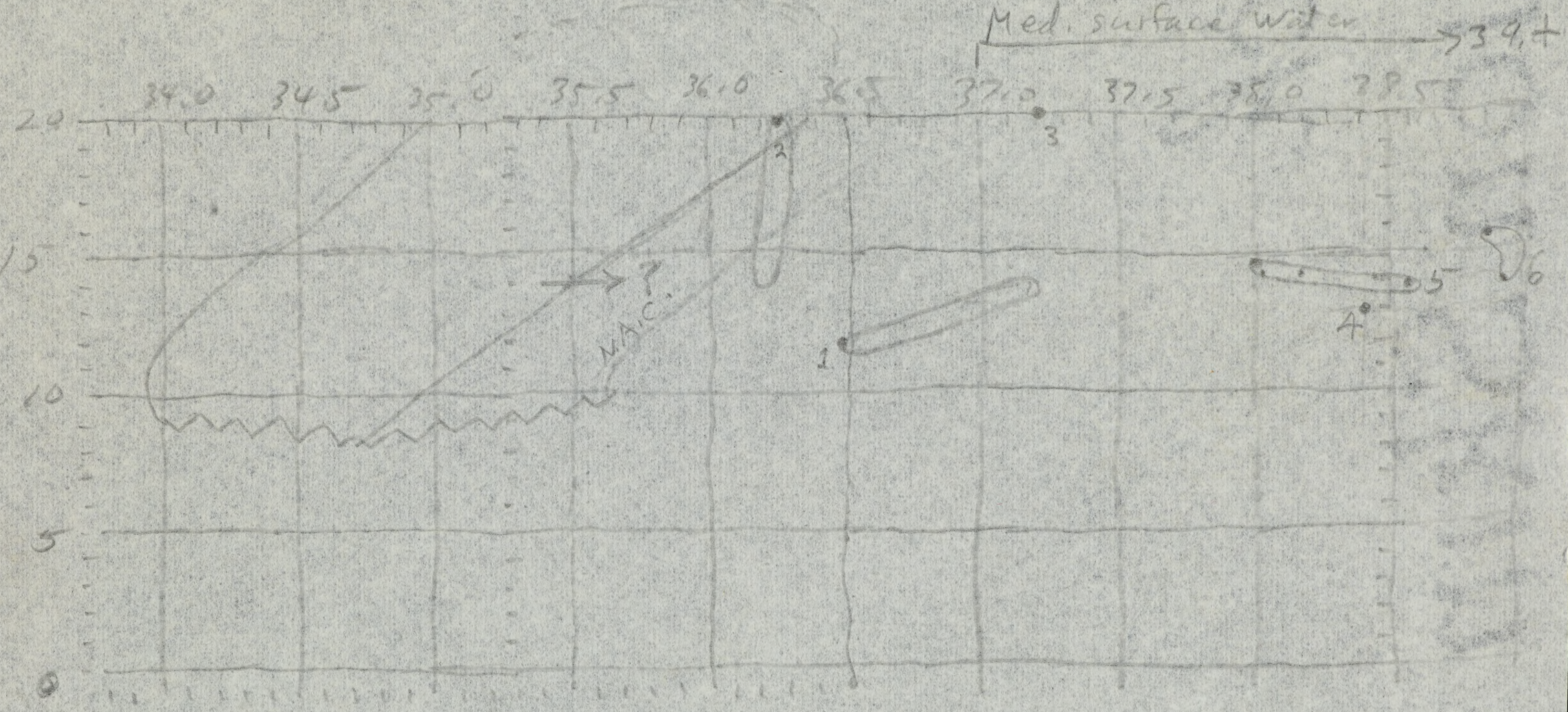
T.	S.
14.8	38.0
14.3	38.07
13.8	38.30
14.1	38.50
14.15	38.60
14.2	38.70
14.15	38.70
13.9	38.65
13.7	38.60



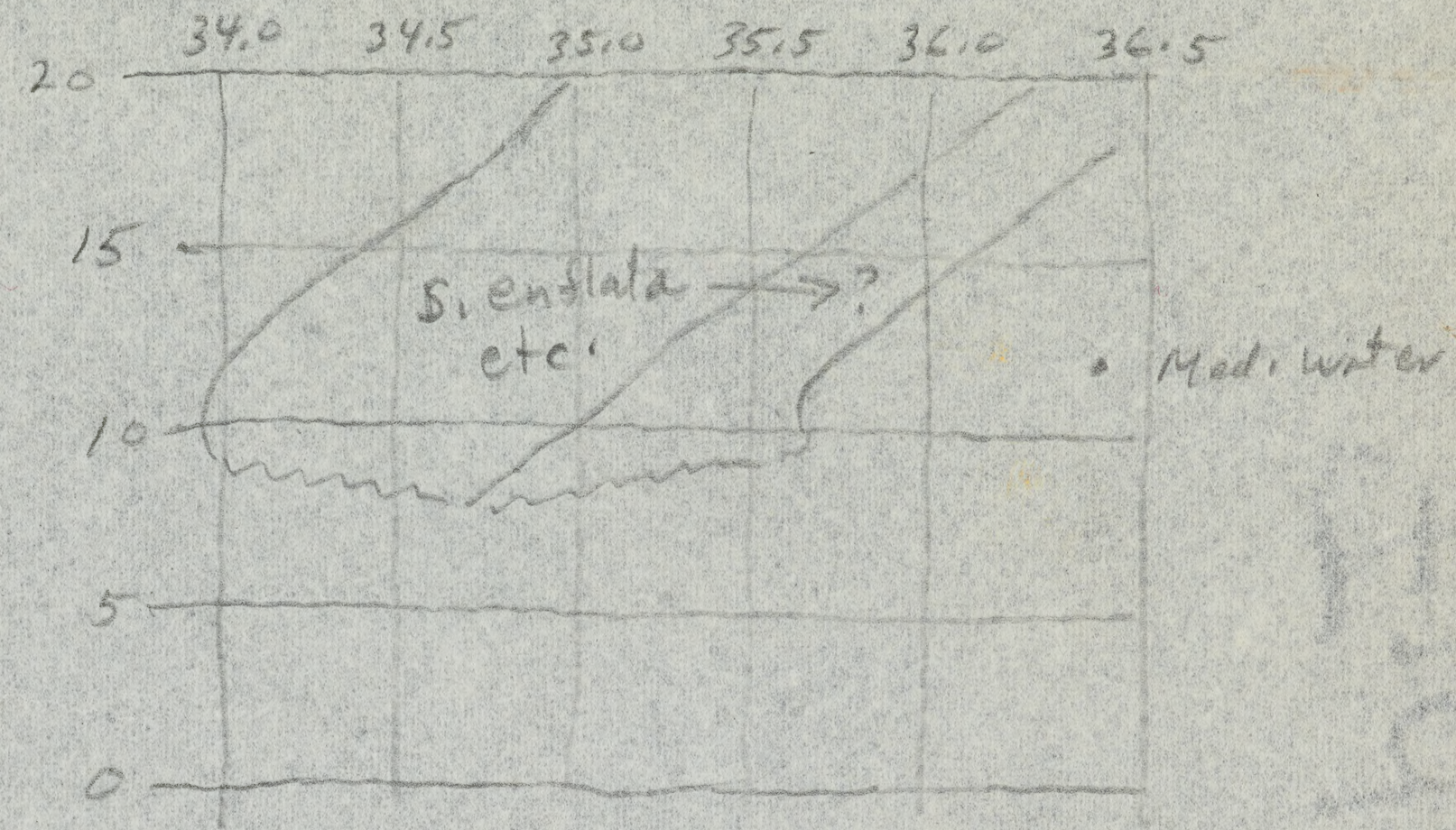
T.	S.
15.9	38.8
15.75	38.88
15.55	38.90
15.4	38.95
15.15	38.95
14.95	38.95
14.8	38.95
14.7	38.95
13.9	38.85

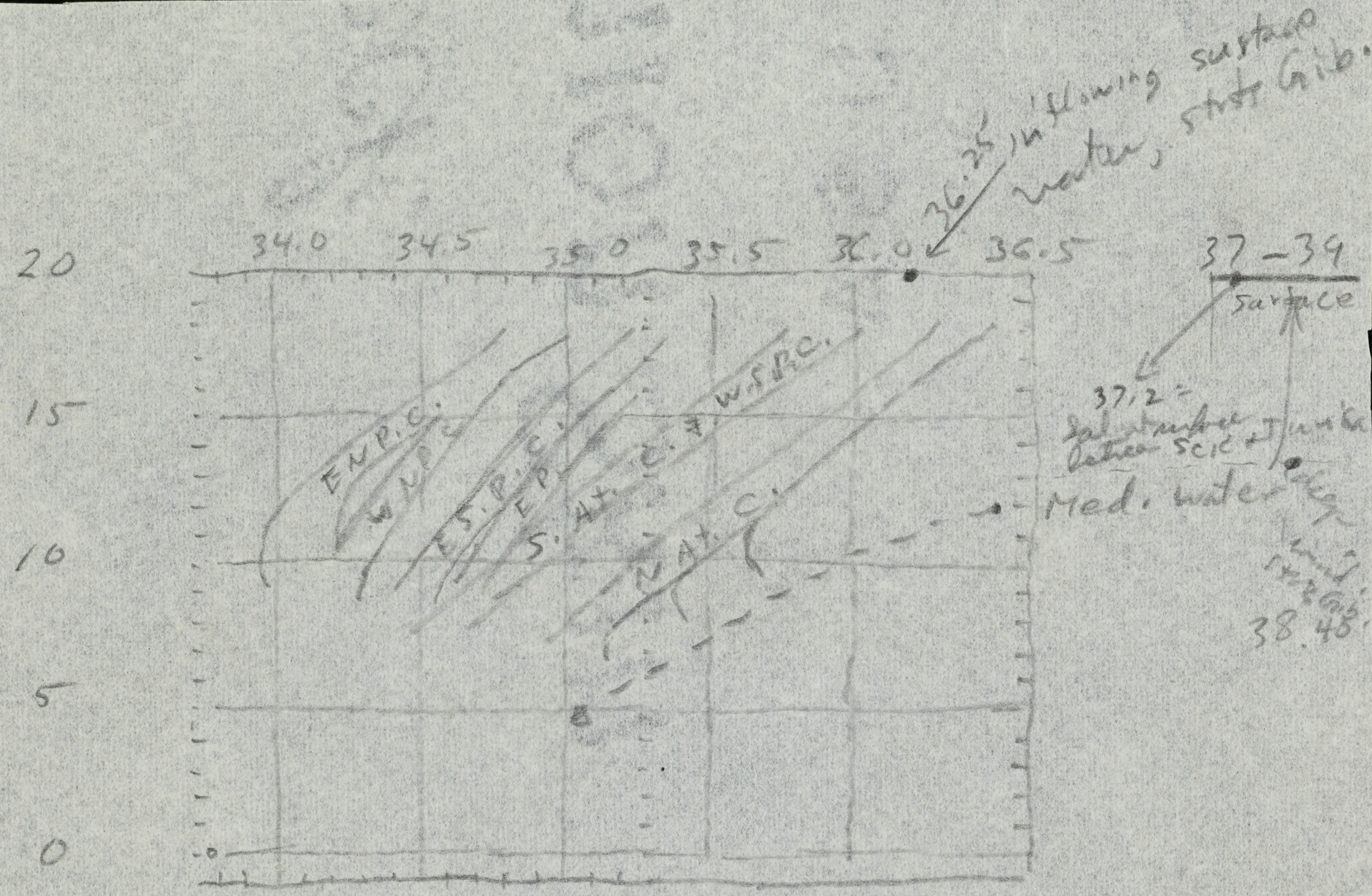
Occurs p. 644 from Dana

stn 4119 Tyr
4070 Ion



1 = Med. water out over sill at Strts. Gib. p. 646 + 741
2 = Inflowing surface water, Strts. Gib. p. 646 + 741
3 = Surface sal. between Sicily and Tunisia p. 648
4 = Deep water inside Strts. Gib. (p. 646)
5. Tyrrhenian Sea 0-500 m
6. Ionian Sea 0-200 m
p. 648


34.0
34.5
35.0
35.5
36.0
36.5
20
15
10
5
0
S. endlata
etc.
Med. water


36.25 inflowing surface water, stat. Gib.
20
15
10
5
0
34.0
34.5
35.0
35.5
36.0
36.5
37 – 39
surface
37.2
Med. water
38.45
E.N.P.C.
E.S.P.C.
S.At.C.
W.S.P.C.
N.At.C.